

## Appendix 1: Bedrock Quarries in the Capital Region Study Area

### Stonewall East

Owner/Operator	Quarry Name	Quarry Location	Easting	Northing	Status*
Borland Construction Inc.	Borland South	NE&SW32-13-2E	622975	5556475	Active
	Borland North	SW5-14-2E	622075	5556800	Active
Inland Aggregates Limited (B-A Materials Limited)	B-A North	SW4-14-2E	623700	5557000	Active
	B-A South	NE33-13-2E	624050	5556365	Active
Mulder Construction & Materials Ltd.	Mulder Pit 85 (Birse)	SE4-14-2E	624200	5556700	Exhausted
	Mulder Pit 88	NE5-14-2E	622900	5557600	Active
Riverside Gravel (1985) Inc. (Bison Rock and Asphalt Products)	Bison	NW4-14-2E	623800	5558525	Active
Standard Limestone Quarries	Standard South	SW&NW33-13-2E	623785	5556350	Active
	Standard North	3&4-4-14-2E	623875	5557350	Exhausted
	Standard Northwest	SE 5-14-2E	623100	5556900	Active
Glacier North Limited	Gillies (Lillies)	13-32-13-2E	621998	5556900	Active
Nelson River Construction Inc.	Whiterock Quarries Ltd.	07-33-13-2E	624175	5555600	Inactive

### Stony Mountain

Owner/Operator	Quarry Name	Quarry Location	Easting	Northing	Status*
Mariash Construction Ltd.	Mariash	1-14-13-2E	628100	5550450	Active
Dennis Penner	City of Winnipeg West	2-14-13-2E	627425	5550475	Exhausted
	City of Winnipeg East	13-12-13-2E	628475	5550250	Exhausted

### Oak Hammock

Owner/Operator	Quarry Name	Quarry Location	Easting	Northing	Status*
Lafarge Canada Inc.	Mowatt Farm (Mulder Pit 12)	10-27-13-03E	635675	5554825	Inactive

### Gunton

Owner/Operator	Quarry Name	Quarry Location	Easting	Northing	Status*
Inland Aggregates Limited (B-A Materials Limited)	Williams or No. 1 Quarry	06-28-15-2E	623590	5573625	Inactive
	Gunn or No. 2 Quarry	07-28-15-2E	623750	5573500	Inactive
	Lime or No. 3 Quarry	14-28-15-2E	623575	5574650	Inactive
R.M. of Rockwood	Gunton Quarry South	15-21-15-2E	623685	5572900	Inactive

# Appendix 1: Bedrock Quarries in the Capital Region Study Area

## Komarno

Owner/Operator	Quarry Name	Quarry Location	Easting	Northing	Status*
Armstrong Construction Limited	<a href="#">Komarno South</a>	NE20-17-2E	622220	5592760	Active
Mulder Construction & Materials Ltd.	<a href="#">Komarno North</a>	E29-17-2E	621870	5593370	Inactive

## Stonewall-Winnipeg

Owner/Operator	Quarry Name	Quarry Location	Easting	Northing	Status*
Stonewall Quarry Park	<a href="#">Stonewall Quarry Park</a>	1-36-13-1E	619725	5555425	Rehabilitated
Bel Acres Golf & Country Club Inc.	<a href="#">Lilyfield NW (Pit 26)</a>	SW28-12-2E	624025	5544325	Active
None	<a href="#">Rosser Pit</a>	8-4-12-2E	625300	5537575	Inactive
City of Winnipeg	<a href="#">Little Mountain Quarry Park</a>	14-27-11-2E	625972	5535486	Rehabilitated

## Garson-Libau

Owner/Operator	Quarry Name	Quarry Location	Easting	Northing	Status*
Gillis Quarries Limited	<a href="#">Garson (Gillis)</a>	13-3-13-6E	664600	5549425	Active
Selkirk Quarries Inc.	<a href="#">Hadiken (Selkirk Quarries)</a>	NE13-14-5E	658200	5562400	Active

\* Status current as of May 1, 2002

**NAME:** BORLAND QUARRY SOUTH

**UQI:** 1Q/16-32-13-02E1

**EAST:** 622975

**NORTH:** 5556475

**DATE:** 1995-07-12

**OWNER:** Borland Construction (1989) Ltd.

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** Yes

**LOCATION:** Stonewall area; 16-32-13-02E1

**SIZE:** Medium

**THICKNESS:** 4.7 m

**OVERBURDEN:** 2.0 m

**USE:** Crushed stone

**REFER:** Bannatyne (1988)

**M.I.C. NO:** 869

**MAPS:** 62I/3, Rockwood AN35

**PHOTO:** 88-3-5: section; 6: close-up of red mottling; 7 to 9: panoramic; 10, 11: panoramic of Standard Quarry South

**JOINTS:**

**FORMATION:** Stony Mountain: Gunton Member (Penitentiary at floor)

**FRACTURES:** Blocky

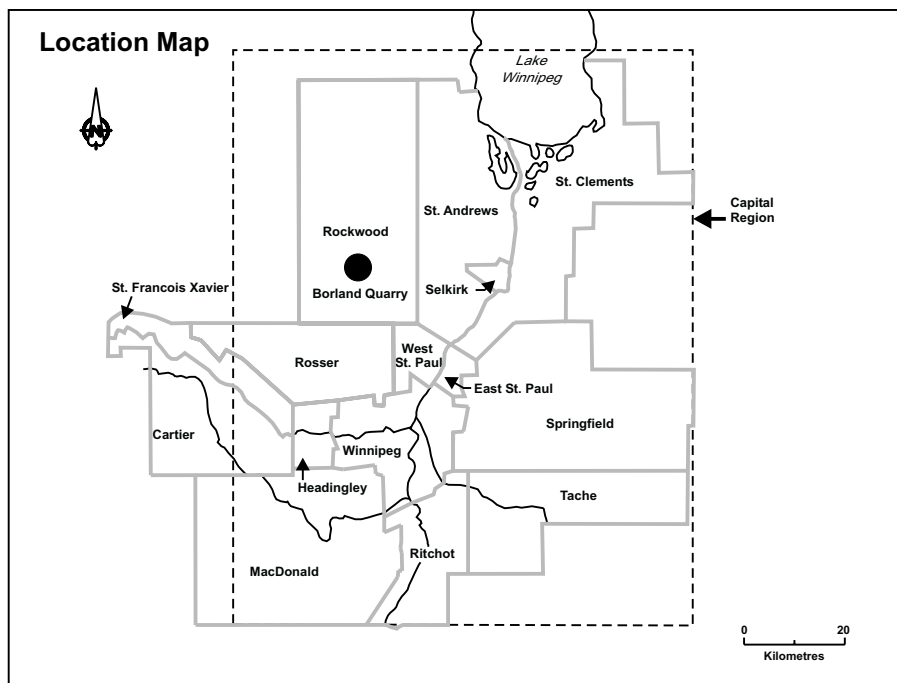
**FOSSILS:** Burrows, corals

**MINERAL:** Pyrite, manganese

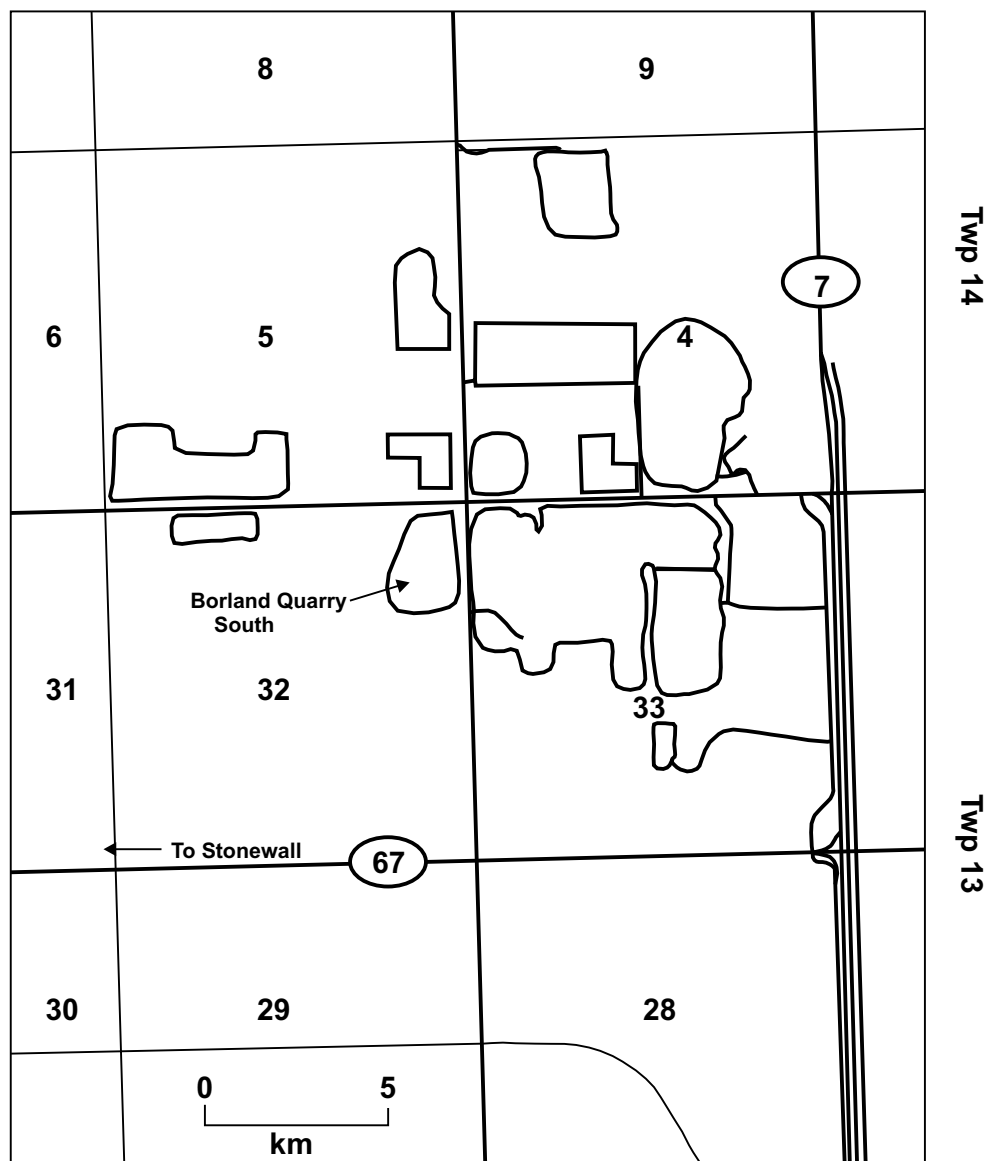
**SECTION:** STONY MOUNTAIN FORMATION:

GUNTON MEMBER (4.7 m): dolomite; buff brown wackestone; very fine to fine crystalline; mottled; 3-6% porosity - vuggy and pinpoint; thin to medium bedded; no distinct red beds, although green grey mudstone beds exist throughout, especially towards the base. At the extreme base and floor is a good, slightly argillaceous mudstone - Penitentiary Member. The Gunton Member appears more argillaceous than in other quarries

**SITE NOTES:** New quarry - post 1992  
Sample: 99-95-IN-2-2



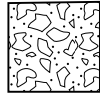
### Borland Quarry South



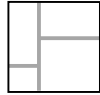
Rge 2E



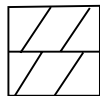
## Legend



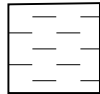
**Overburden**



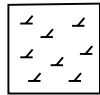
**Limestone**



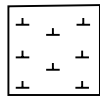
**Dolomite**



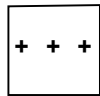
**Mudstone/shale**



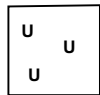
**Dolomitic limestone**



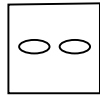
**Carcareous mudstone**



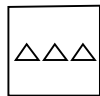
**Salt casts**



**Burrows**

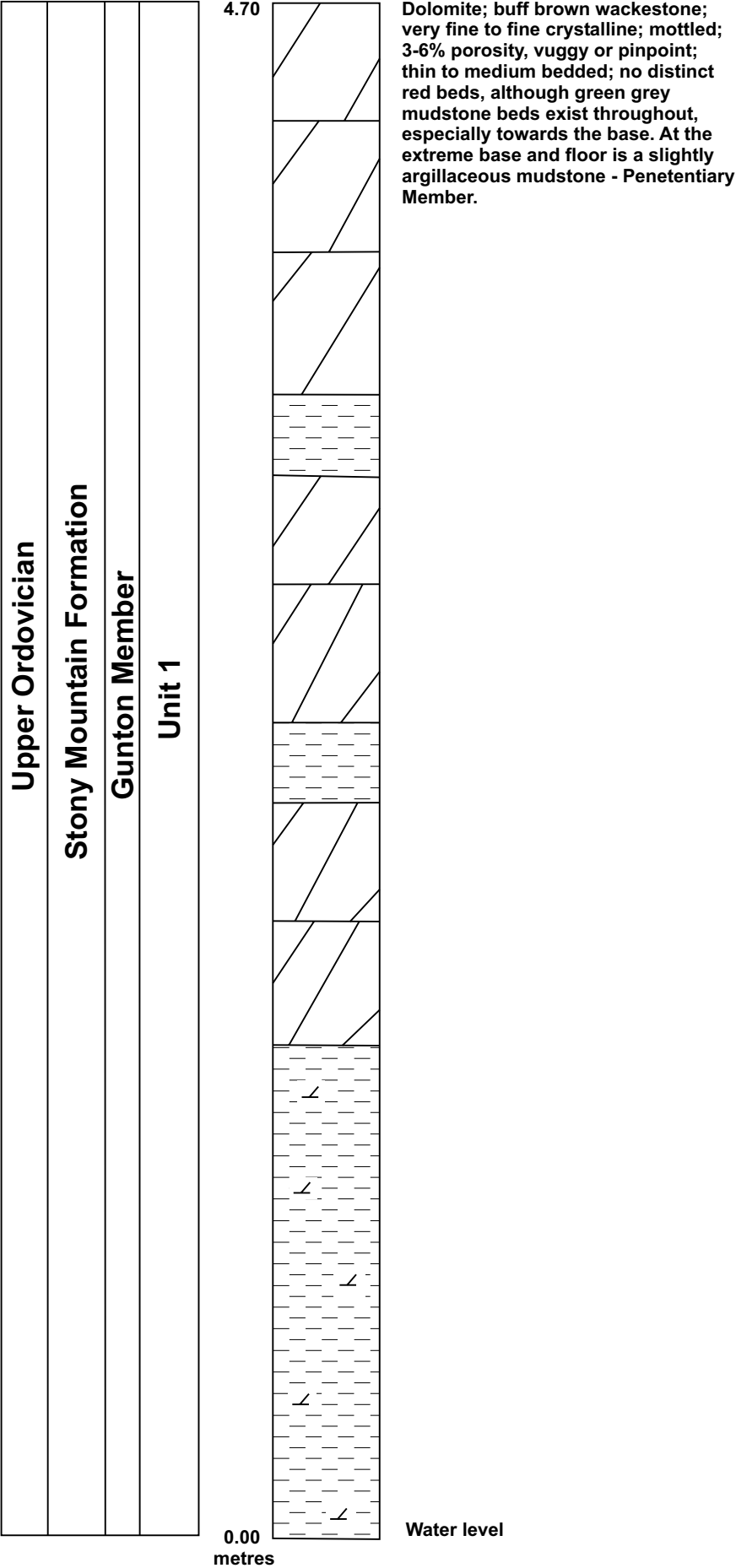


**Mottling**



**Chert nodules**

Borland Quarry South





BA South 01 - 1995-07-12, B.A. Quarry South, Penitentiary and Gunton members of the Stony Mountain Formation. Photo of sump pit.



BA South 02 - 1995-07-12, B.A. Quarry South, Penitentiary and Gunton members of the Stony Mountain Formation. Photo of sump pit.





BA South 03 - 1995-07-12, B.A. Quarry South, Penitentiary and Gunton members of the Stony Mountain Formation. Transitional contact between red, mottled dolomitic mudstone and buff wackestone.



BA South 04 - 1995-07-12, B.A. Quarry South, Gunton Member of the Stony Mountain Formation. Connection road to Standard Quarry.



BA South 05 - 1995-07-12, B.A. Quarry South, Gunton Member of the Stony Mountain Formation. Connection road to Standard Quarry.



BA South 06



BA South 07



BA South 08

BA South 06-08 - 1995-07-12, Quarry South, Gunton Member of the Stony Mountain Formation. Photo of two benches and sump pit, view from southwest to northwest.





BA South 06 - 1995-07-12, Quarry South, Gunton Member of the Stony Mountain Formation.  
Photo of two benches and sump pit. View towards the southwest.



BA South 07 - 1995-07-12, Quarry South, Gunton Member of the Stony Mountain Formation.  
Photo of two benches and sump pit, view towards the west.



BA South 08 - 1995-07-12, Quarry South, Gunton Member of the Stony Mountain Formation.  
Photo of two benches and sump pit. View towards the northwest.

**NAME:** BORLAND QUARRY NORTH

**UQI:** 1Q/03-05-14-02E1

**EAST:** 622075

**NORTH:** 5556800

**DATE:** 1995-06-27

**OWNER:** Borland Construction

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** Yes

**LOCATION:** Stonewall area; 03-05-14-02E1

**SIZE:** Large

**THICKNESS:** 5.9 m

**OVERBURDEN:** 1.0 m

**USE:** Crushed stone

**REFER:** Bannatyne (1988)

**M.I.C. NO:** 869

**MAPS:** 62I/3, Rockwood AN35

**PHOTO:** 88-3-1 to 4: panoramic

**JOINTS:**

**FORMATION:** Stony Mountain: Gunton Member

**FRACTURES:** Blocky

**FOSSILS:** Fossil molds, corals

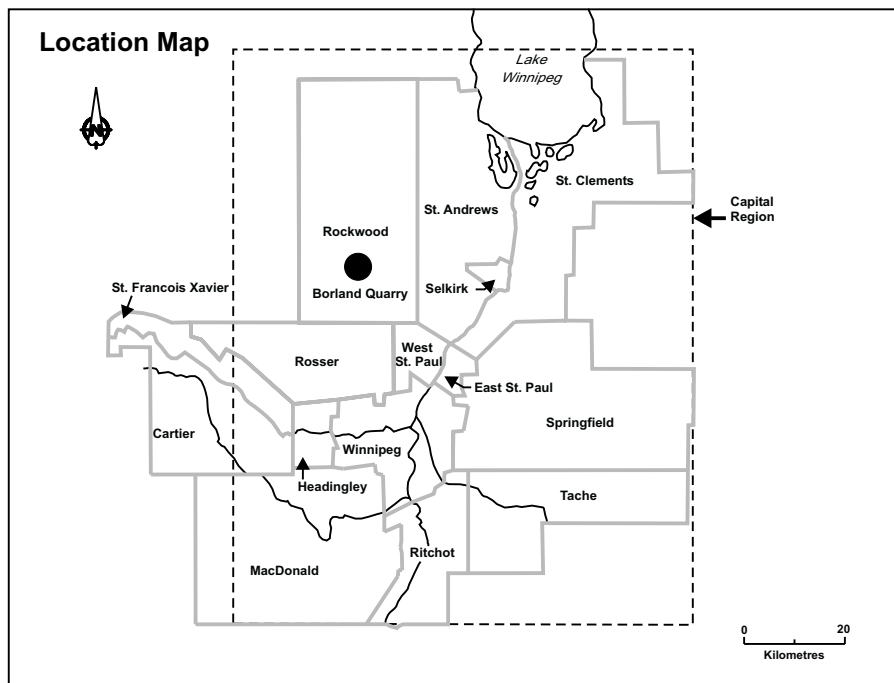
**MINERAL:**

**SECTION:** STONY MOUNTAIN FORMATION:

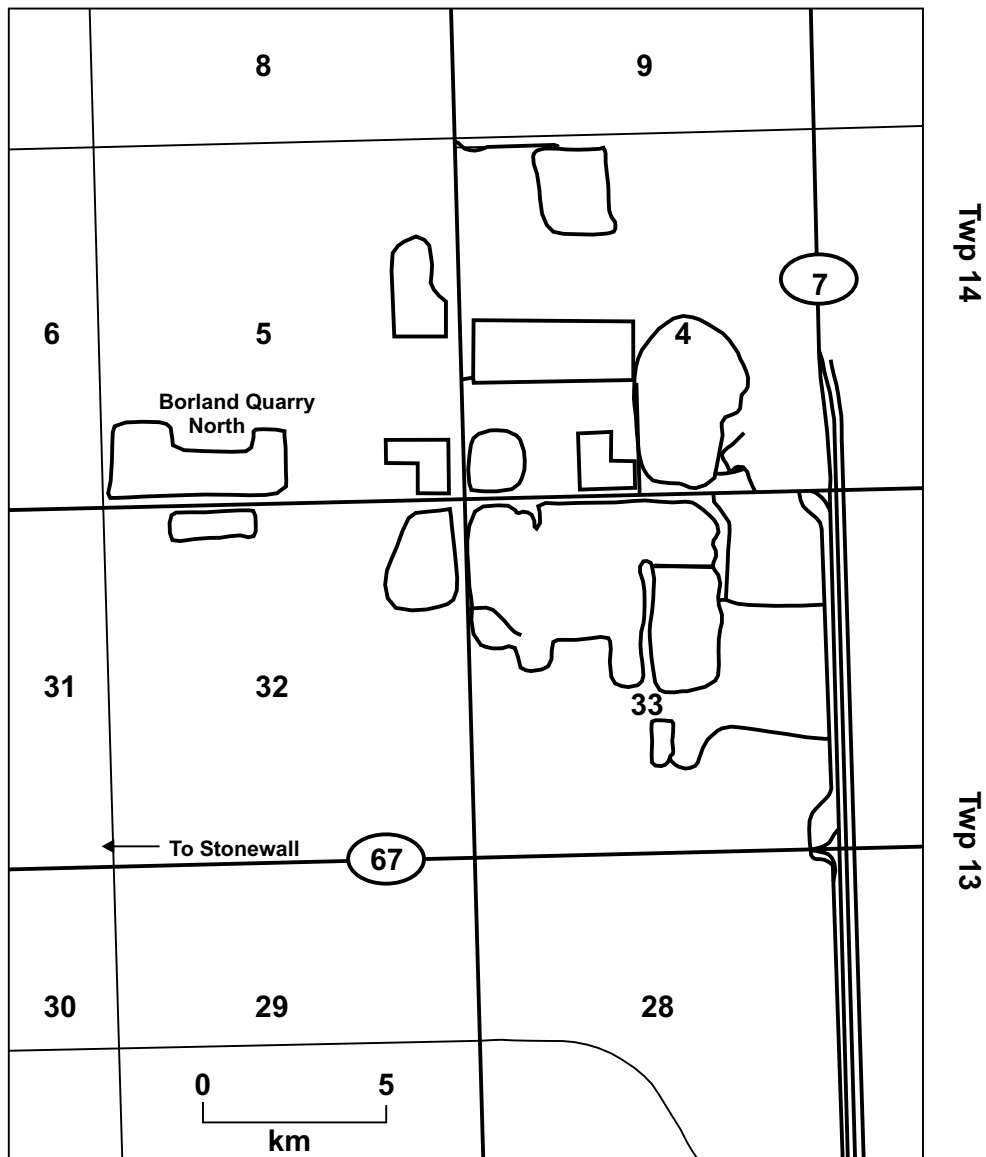
GUNTON MEMBER (5.9 m): dolomite; wackestone; light brown to tan; thin to thick bedded; 5-8% porosity; vuggy; very fine to fine crystalline; mottled; interbedded with blue grey mudstone beds - recessive with clayey partings.

**SITE NOTES:** Sample 99-92-IN-4-2; very water filled, especially in SW corner; overburden has been piled into the middle. Former General Stone Quarry. Started in 1976.



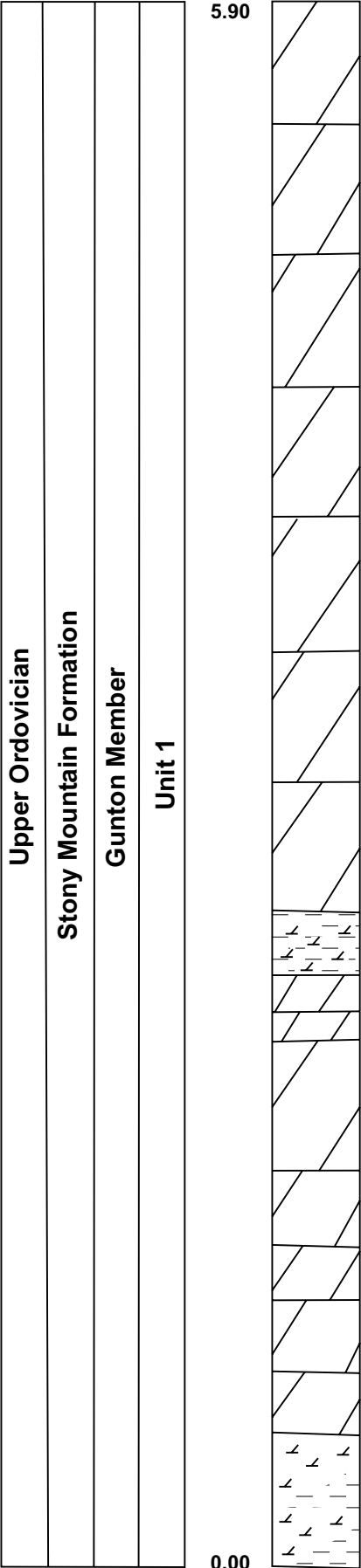


### Borland Quarry North



Rge 2E

**Borland Quarry North**



Dolomite; wackestone; light brown to tan; thin to thick bedded; 5-8% porosity, vuggy; very fine to fine crystalline; mottled; interbedded with blue grey mudstone beds - recessive with clayey partings

Water level



Borland N 01



Borland N 02



Borland N 03



Borland N 04

Borland N 01 to 04 - 1996-06-27, Gunton Member of the Stony Mountain Formation. View from southwest to northwest, across partly water-filled quarry.



Borland N 01 - 1996-06-27. Gunton Member of the Stony Mountain Formation. View towards the southwest.



Borland N 02 - 1996-06-27. Gunton Member of the Stony Mountain Formation. View towards the west.



Borland N 03 - 1996-06-27. Gunton Member of the Stony Mountain Formation. View towards the west- northwest.



Borland N 04 - 1996-06-27. Gunton Member of the Stony Mountain Formation. View towards the northwest.

PRODUCT Dolomite

N.T.S. AREA 62 I/3 NW

REF. STN 2

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**NAME OF PROPERTY:**

Borland Quarries (North and South)

**OWNER OR OPERATOR AND ADDRESS**Borland Construction Ltd.  
751 Lagimodiere  
Winnipeg, MB

Lat. 53°09'15"

Long. 97°17'20"

Uncertainty: 50 m

UTM: NAD 83

622075E

556800N

L.S. 3

Sec. 5

Tp. 14

R. 2 EPM

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**OBJECT LOCATED:** Dolomite Quarry**MINING DIVISION** Winnipeg

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**DESCRIPTION OF DEPOSIT**

Light orange-brown and light grey mottled dolomite of the Gunton Member of the Ordovician Stony Mountain Formation is being quarried. An 8 cm bed of dolomite containing some green, sticky clay occurs about 1-1.5 m below bedrock surface. Two zones of grey sublithographic dolomite, each about 20-25 cm thick are exposed in the section above the quarry floor. Slight greenish and purplish shades in some of the dolomite in places suggest a low content of argillaceous material. Chert occurs as white irregular patches of the chalky variety that appear to be concentrated along two or more bedding planes, one below the green clay layer, one above the grey dolomite. Chert also occurs as hard rounded grey nodules (about 2.5-5 cm in diameter) scattered in one layer of the dolomite, about 1 m below the green clay-dolomite layers, in the southeastern part of the quarry.

Use: Crushed Stone

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**HISTORY OF EXPLORATION AND DEVELOPMENT**

The quarry is located in L.S. 3, sec. 5 about 3 km northeast of Stonewall.

Operations began in the fall of 1976. By October 1976, overburden had been removed and blasting of rock had begun. Overburden of 1.5-1.8 m is bulldozed off and stacked in spoil piles, one of which is a long ridge bordering the south side of the quarry. The blast holes are drilled on a 1.8 m square grid and the quarry is currently (1978) worked in one 6 m bench. The rock is trucked up to a roll crusher, and broken to less than 10 cm size. A triple screen and conveyor belts are used for sorting. They are now (1978) adding a hammer mill to produce 200 mesh material. The quarry is expanding towards the west although it could be deepened.

1988: Ownership remained with General Stone Products Ltd.

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<b>NAME OF PROPERTY</b>	Borland Quarry (North & South) <b>N.T.S. AREA</b> 62 I/3 NW	<b>FILE NO.</b> 869 <b>REF.</b> STN 2
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#### **HISTORY OF EXPLORATION AND DEVELOPMENT (continued)**

1992-1995 Continuous production of crushed stone. Ownership was obtained by Borland Construction, and the quarry goes under the name Borland Quarry North. In addition the area of 16-32-13-2EPM was also being quarried by Borland Construction under the name of Borland Quarry South.

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Associated minerals or products of value

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#### **HISTORY OF PRODUCTION**

Quarrying began in 1976. Crushed stone is produced; some of which is intended for highway construction.

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#### **REFERENCES**

Industrial Minerals Geologist's file, Manitoba Mineral Resources Division.  
Bamburak, James, Bezys, Ruth  
1995  
Capital Region Study, Quarry Descriptions 1995  
Lynda Bennett  
1996  
Personal communication

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#### **MAP REFERENCES**

Map 62 I/3, Stonewall, (Topography), Sc. 1:50,000, Surveys & Mapping  
Branch, Ottawa.  
Rockwood AN 35

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#### **REMARKS**

STN 2: previously referenced as DOL 3  
UQI: 1Q/03-05-14-04E1

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<b>Comp./Rev.</b>	NLL	KH
<b>By Date</b>	07-78	05-1996

**NAME:** B. A. QUARRY NORTH

**UQI:** 1Q/04-04-14-02E1

**EAST:** 623700

**NORTH:** 5557000

**DATE:** 1995-07-13

**OWNER:** B. A. Materials Ltd.

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** Yes

**LOCATION:** Stonewall area; 04-04-14-02E1

**SIZE:** Medium - large

**THICKNESS:** 7.6 m (1.0 m in pit)

**OVERBURDEN:** 1.5 - 2.0 m

**USE:** Crushed stone

**REFER:** Bannatyne (1975, 1988)

**M.I.C. NO:** 873

**MAPS:** 62I/3, Rockwood AN35

**PHOTO:** 88-3-34 to 36: blast; 88-4-1 to 4: panoramic

**JOINTS:**

**FORMATION:** Stony Mountain: Gunton/Penitentiary members

**FRACTURES:** Blocky

**FOSSILS:**

**MINERAL:**

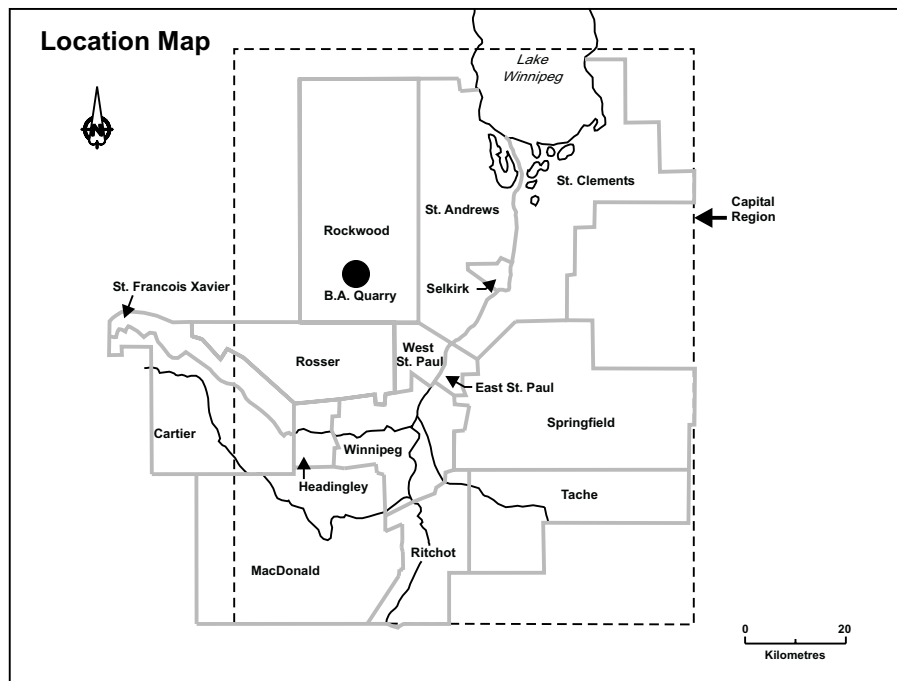
**SECTION:** STONY MOUNTAIN FORMATION:

GUNTON MEMBER (7.6 m): dolomite; light tan buff wackestone; thin to medium bedded; 5-7% porosity, vuggy.

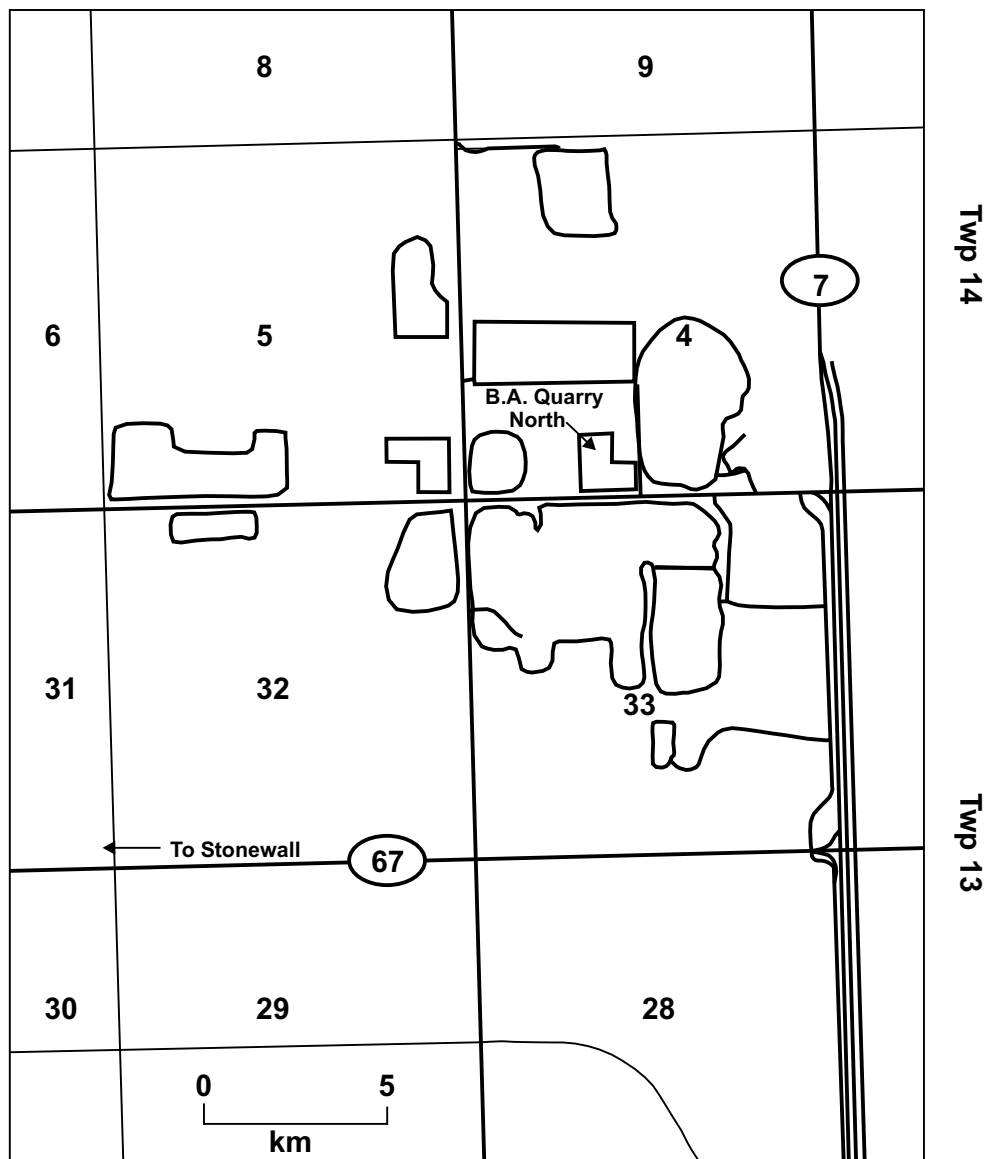
PENITENTIARY MEMBER (1.0 m): red brown dolomitic mudstone; pit is about 2 x 5 m large.

**SITE NOTES:**



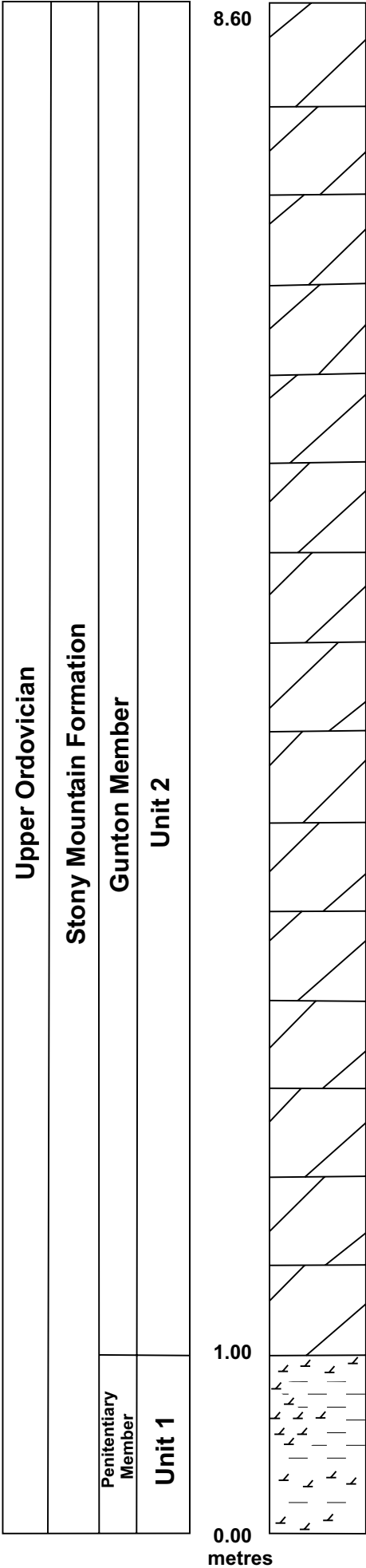


### B.A. Quarry North



Rge 2E

B.A. Quarry North



Dolomite; light tan buff wackestone;  
thin to medium bedded; 5-7% porosity-  
vuggy

pit

Red brown dolomitic mudstone



B.A. North 01 - 1995-07-13, B.A. Quarry North. Gunton Member of the Stony Mountain Formation. Blasting of bedrock.



B.A. North 02 - 1995-07-13, B.A. Quarry North. Gunton Member of the Stony Mountain Formation. Blasting of bedrock.



B.A. North 03 - 1995-07-13, B.A. Quarry North. Gunton Member of the Stony Mountain Formation. Standing on berm and looking east to Birse Kiln.





BA North 04



BA North 05

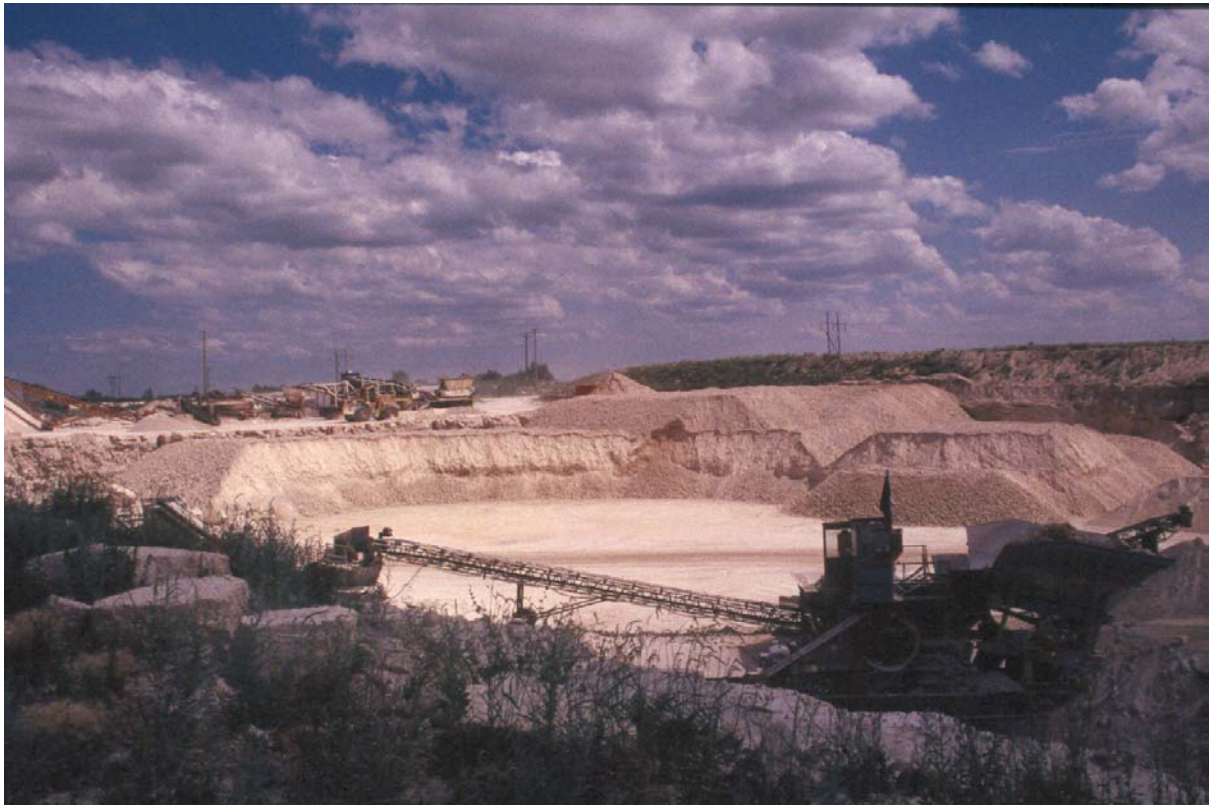


BA North 06



BA North 07

BA North 04-07 - 1995-07-13, B.A. Quarry North. Gunton Member of the Stony Mountain Formation. Panorama view northwest to east.



BA North 04 - 1995-07-13, B.A. Quarry North. Gunton Member of the Stony Mountain Formation. View towards the northwest.



BA North 05 - 1995-07-13, B.A. Quarry North. Gunton Member of the Stony Mountain Formation. View towards the north.



BA North 06 - 1995-07-13, B.A. Quarry North. Gunton Member of the Stony Mountain Formation. View towards the northeast.





BA North 07 - 1995-07-13, B.A. Quarry North. Gunton Member of the Stony Mountain Formation. View towards the east.

**NAME:** B. A. QUARRY SOUTH

**UQI:** 1Q/10-33-13-02E1

**EAST:** 624050

**NORTH:** 5556365

**DATE:** 1995-07-12

**OWNER:** B. A. Materials Ltd.

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** Yes

**LOCATION:** Stonewall area; 10-33-13-02E1

**SIZE:** Large

**THICKNESS:** 8.0 m (4.0 m in pit)

**OVERBURDEN:** 1.0 - 2.0 m

**USE:** Crushed stone

**REFER:** Bannatyne (1988)

**M.I.C. NO:** 873

**MAPS:** 62I/3, Rockwood AN35

**PHOTO:** 88-3-12, 13: pit; 14: of mottled Penitentiary; 15, 16: connection to Standard Quarry;  
88-6-21 to 23: of two benches and pit

**JOINTS:**

**FORMATION:** Stony Mountain: Gunton/Penitentiary members

**FRACTURES:** Blocky

**FOSSILS:** Favositid coral (head)

**MINERAL:**

**SECTION:** STONY MOUNTAIN FORMATION:

GUNTON MEMBER (10.5 m): dolomite; light brown buff wackestone; very fine to fine crystalline; 5-7% porosity; very thin to medium bedded; interbedded with 3 - 4 m beds at base; favositid coral found in situ at the base.

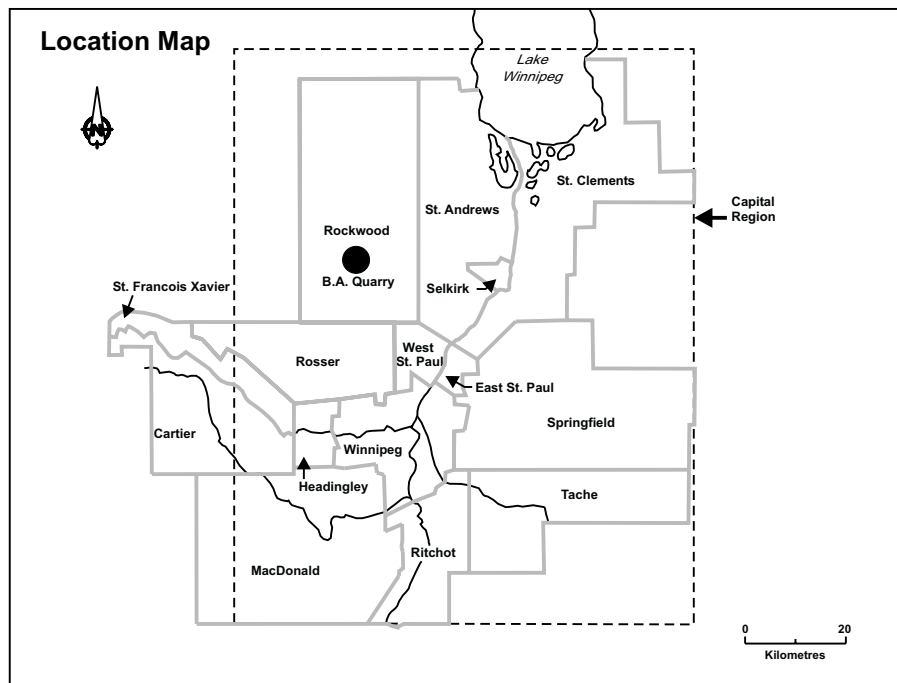
PENITENTIARY MEMBER (1.5 m): red brown to green grey dolomitic mudstone; fine grained; thin to thick bedded.

**SITE NOTES:** Nearly abandoned - no crushing, just stockpiling.

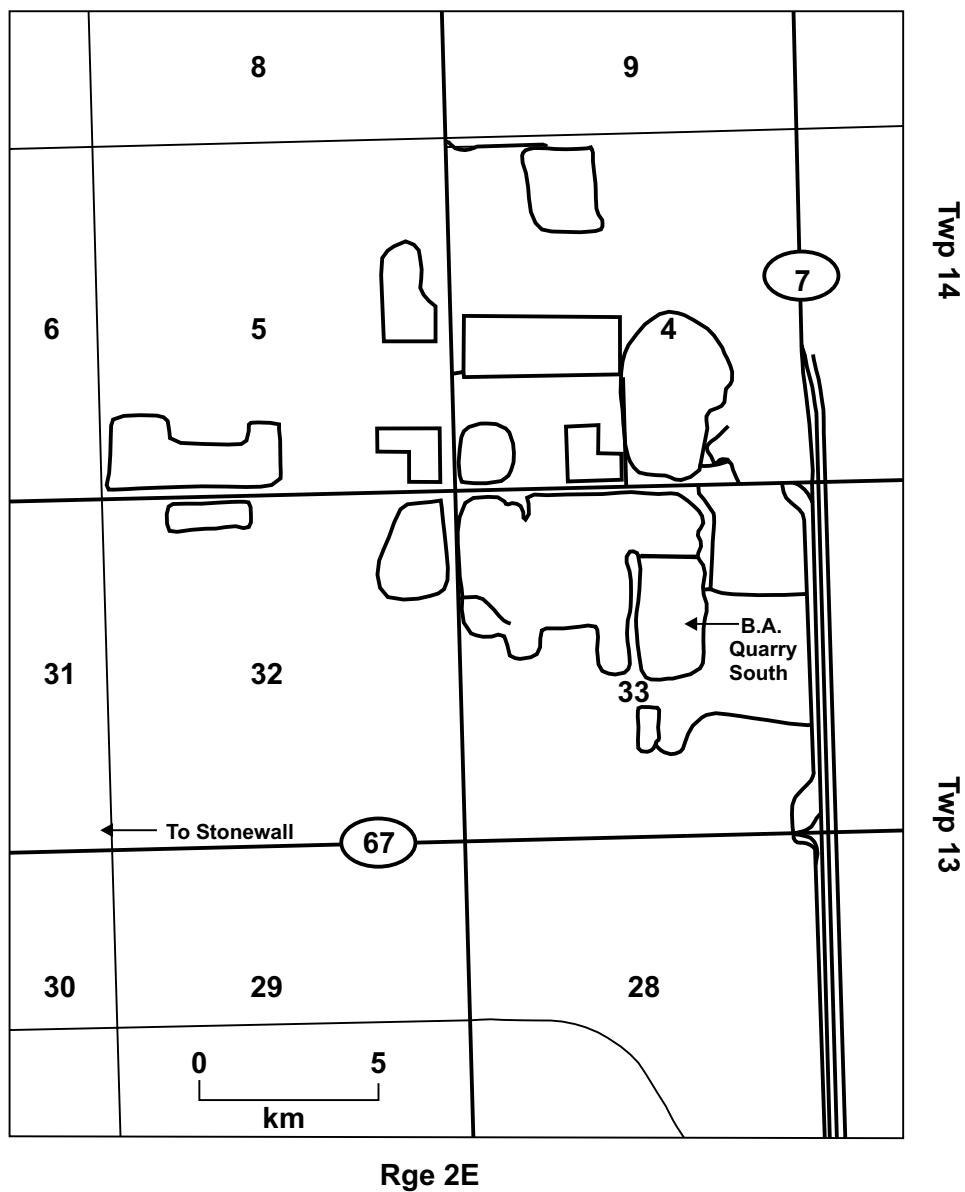
Sample: 99-95-IN-2-3

Coral head found IN SITU (towards the base) in mottled wackestone.

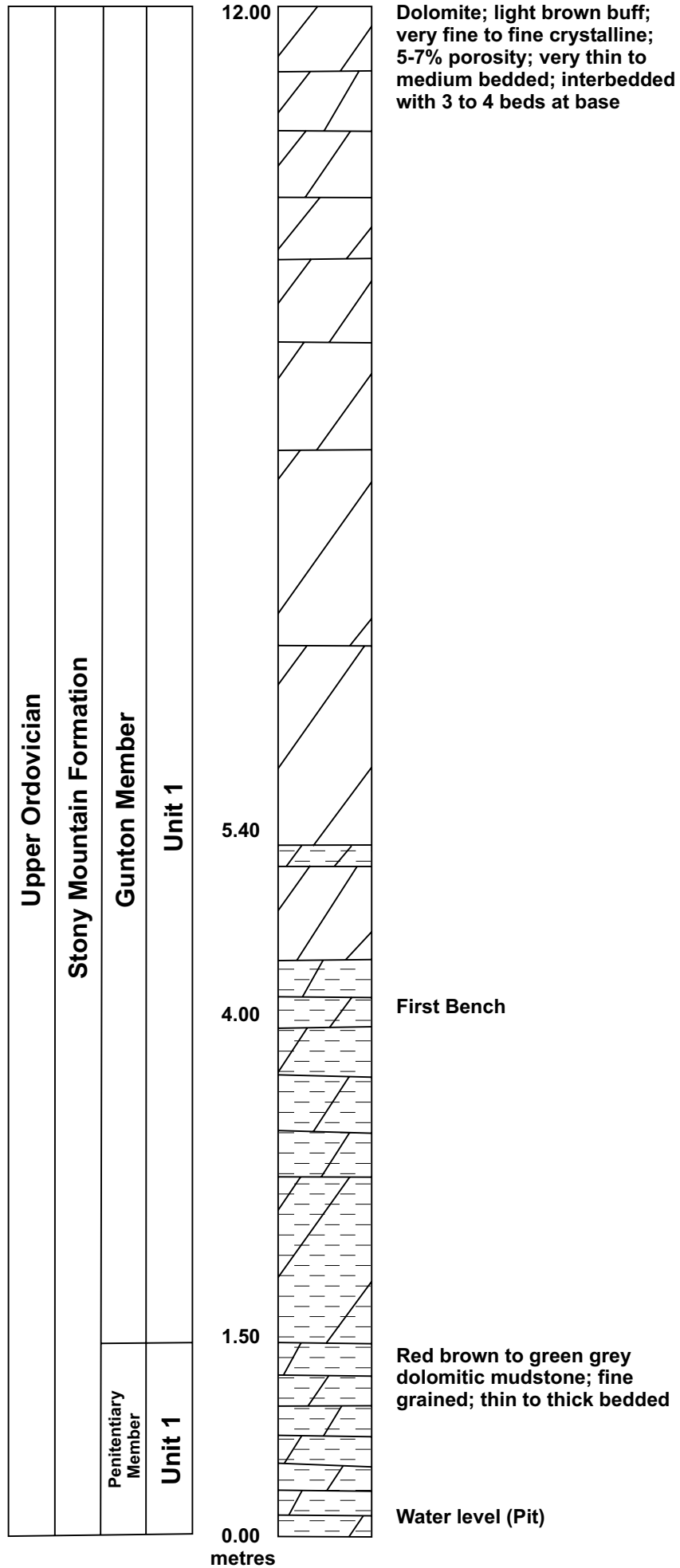




### B.A. Quarry South



# B.A. Quarry South





BA South 01 - 1995-07-12, B.A. Quarry South, Penitentiary and Gunton members of the Stony Mountain Formation. Photo of sump pit.



BA South 02 - 1995-07-12, B.A. Quarry South, Penitentiary and Gunton members of the Stony Mountain Formation. Photo of sump pit.





BA South 03 - 1995-07-12, B.A. Quarry South, Penitentiary and Gunton members of the Stony Mountain Formation. Transitional contact between red, mottled dolomitic mudstone and buff wackestone.



BA South 04 - 1995-07-12, B.A. Quarry South, Gunton Member of the Stony Mountain Formation. Connection road to Standard Quarry.



BA South 05 - 1995-07-12, B.A. Quarry South, Gunton Member of the Stony Mountain Formation. Connection road to Standard Quarry.



BA South 06



BA South 07



BA South 08

BA South 06-08 - 1995-07-12, Quarry South, Gunton Member of the Stony Mountain Formation. Photo of two benches and sump pit, view from southwest to northwest.





BA South 06 - 1995-07-12, Quarry South, Gunton Member of the Stony Mountain Formation.  
Photo of two benches and sump pit. View towards the southwest.



BA South 07 - 1995-07-12, Quarry South, Gunton Member of the Stony Mountain Formation.  
Photo of two benches and sump pit, view towards the west.



BA South 08 - 1995-07-12, Quarry South, Gunton Member of the Stony Mountain Formation.  
Photo of two benches and sump pit. View towards the northwest.

PRODUCT Dolomite

N.T.S. AREA 62 I/3 NW

REF. STN 4

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**NAME OF PROPERTY:**

B-A Quarry (North and South)

**OWNER OR OPERATOR AND ADDRESS**B-A Materials Ltd  
Box 249 STN C  
Winnipeg, MB R3M 3T2

Lat. 50°08'53"

Long. 97°15'30"

Uncertainty: 50 m

UTM: NAD 83

624050E

5556365N

L.S. 9,10

Sec. 33

Tp. 13

R. 2 EPM

L.S. 4

Sec. 4

Tp. 14

R. 2 EPM

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**OBJECT LOCATED:** Dolomite Quarry**MINING DIVISION** Winnipeg

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**DESCRIPTION OF DEPOSIT**

South:

Six to 7.5 m of Ordovician dolomite of the Gunton Member of the Stony Mountain Formation is exposed in the quarry. It is similar to that exposed in the Standard Limestone quarry. See MI card 62 I/3, STN 3. (STN: previously referenced as DOL 6)

North:

Stony Mountain Formation: Gunton/Penitentiary Members. The Gunton member is a light tan buff dolowackestone. It is thin to medium bedded and the porosity is 5-7 %. It is also vuggy.

The Penitentiary member is red brown dolomudstone and is 2 x 5 m large. The fractures at this site are blocky.

Uses: Crushed stone.

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**HISTORY OF EXPLORATION AND DEVELOPMENT**

The quarry is located in L.S. 9 and 10 of sec. 33, about 2.75 km northeast of Stonewall, immediately south of the Standard Limestone Quarries' pit.

The quarry was opened about 1963 by Tallman Gravel and Sand Supply Ltd., which later became part of the BACM Industries Ltd. group. In 1963 the excavation measured about 90 m by 90 m, by 6 to 7.5 m deep. There was crushing and classifying equipment on the site. After 1963 a large area west of the pit was stripped of overburden. The quarry remained dormant for nearly a decade. In 1973 the quarry measured about 90 m by 200 m. In 1977 the quarry was again in operation and operations continued in 1978.

Update: Argillaceous dolomite of the Penitentiary member has been quarried in the northwest part of the quarry.

1988: Northwest quarry in operation?

1988-

1995: Ownership by BA Industries Ltd. and quarry name changed from Northwest Quarries to BA Quarry (south and north). Operation continues.

---

<b>NAME OF PROPERTY</b>	B A Quarry (North and South) <b>N.T.S. AREA</b> 62 I/3 NW	<b>FILE NO.</b> 873 <b>REF.</b> STN 4
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#### **HISTORY OF EXPLORATION AND DEVELOPMENT (continued)**

1992: B-A Quarry North was opened at L.S. 04, sec 04, Tp 14, Rge. 02EPM but remained inactive for this year.

1993-

1996: New quarrying of crushed stone was commenced in 1993 at B-A Quarry North. Continual production of crushed stone occurs at both North and South Quarries.

---

Associated minerals or products of value

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#### **HISTORY OF PRODUCTION**

The South quarry was first opened about 1963. Crushing and screening were carried out at the site. The quarry remained dormant for nearly a decade. Operations began again in 1977 and continued in 1978.

1995: Production continued  
Shipping Point: Quarry  
Material Shipped: Crushed Stone  
Destination: Local, and Winnipeg  
Distance from mine: 30 km  
Carrier: Truck

The North quarry was first opened up in 1992. Production didn't commence until 1993 and continued in 1996.

---

#### **REFERENCES**

Bannatyne, B.B.  
1971:  
Industrial Minerals of the Sedimentary Area of Southern Manitoba;  
Geological Association of Canada, Special Paper No. 9, p. 245.  
Industrial Minerals Geologist's file; Manitoba Mineral Resources Division.  
Bannatyne, B.B.  
1988  
Dolomite Resources of Southern Manitoba, p.22  
Bamburak, James, Bezys, Ruth  
1995  
Capital Region Study, Quarry Descriptions 1995  
Lynda Bennett  
1995  
Personal Communication

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#### **MAP REFERENCES**

Map 12, Industrial Minerals Producers (Index), Sc. 1:1,000,000, Manitoba Mineral Resources Division.  
Map 62 I/3, Stonewall, (Topography), Sc. 1:50,000, Surveys & Mapping Branch, Ottawa.  
Rockwood AN 35



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<b>NAME OF PROPERTY</b>	B A Quarry (North and South) <b>N.T.S. AREA</b> 62 I/3 NW	<b>FILE NO.</b> 873 <b>REF.</b> STN 4
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**REMARKS**

The quarry is on patented land.  
STN 4: previously referenced as DOL 7  
UQI South: 1Q/10-33-13-02E1  
North: 1Q/04-04-14-02E1

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<b>Comp./Rev.</b>	NLL	KH
<b>By Date</b>	07-78	05-1996

**NAME:** MULDER PIT 85 (BIRSE Q)

**UQI:** 1Q/02-04-14-02E1

**EAST:** 624200

**NORTH:** 5556700

**DATE:** 1995-07-13

**OWNER:** Mulder Construction

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** No

**LOCATION:** Stonewall area, 02-04-14-02E1

**SIZE:** Large

**THICKNESS:** 7.4 m

**OVERBURDEN:** 0.5 - 1.0 m

**USE:** Crushed stone

**REFER:** Baillie (1952); Goudge (1944); Okulitch (1943); Parks (1916); Bannatyne (1988)

**M.I.C. NO:** 871

**MAPS:** 62I/3, Rockwood AN35

**PHOTO:** 88-3-24: section ; 25: close-up of red beds; 26,27: escarpment edge on top of east face

**JOINTS:** 040°, 020°, 045°, 055°, near vertical

**FORMATION:** Stony Mountain: Gunton Member

**FRACTURES:** Blocky

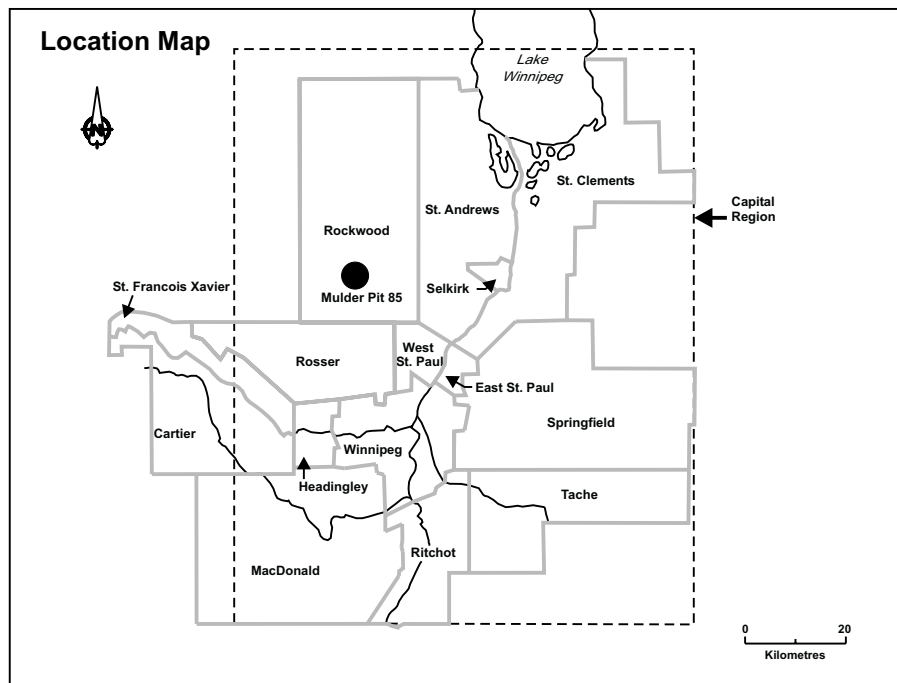
**FOSSILS:** Burrows and corals

**MINERAL:**

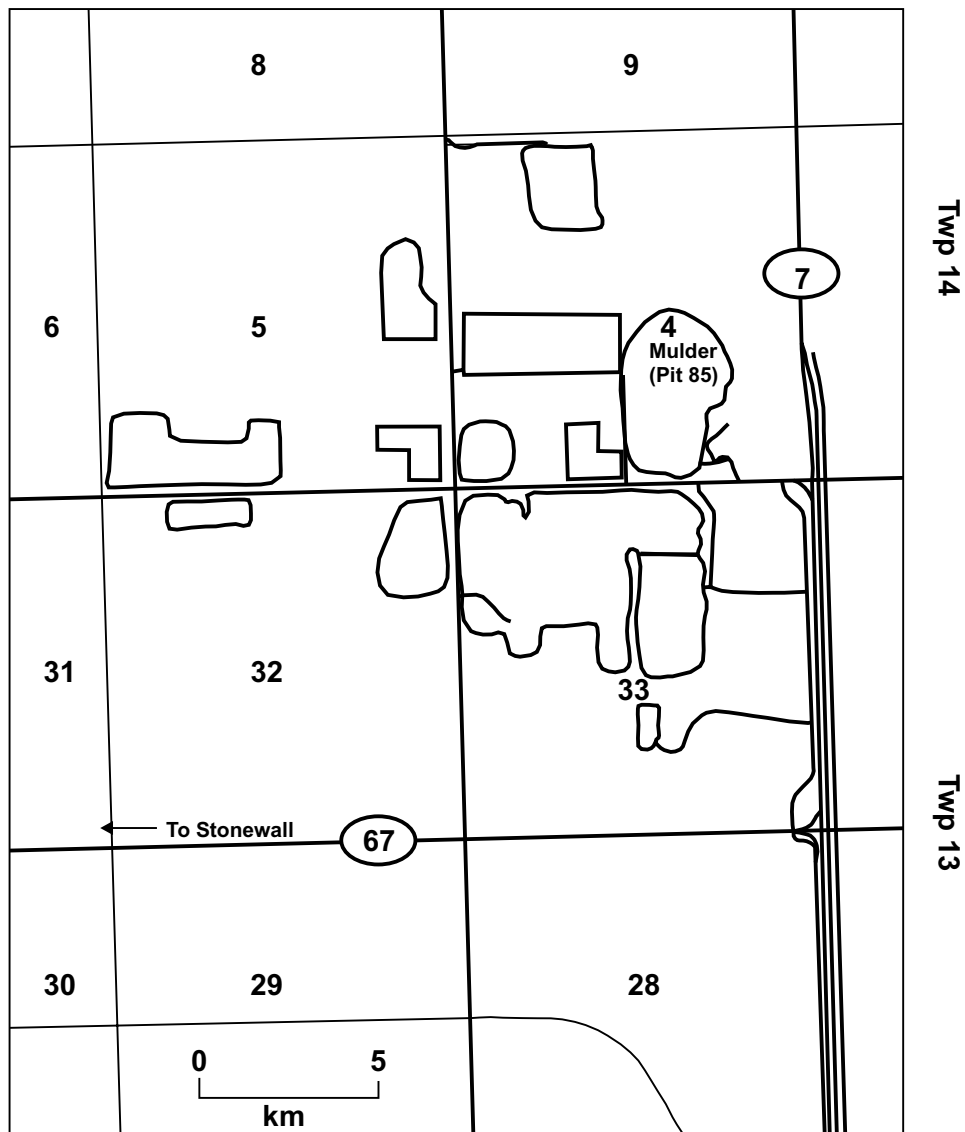
**SECTION:** STONY MOUNTAIN FORMATION:

GUNTON MEMBER (7.4 m): dolomite; wackestone; light brown tan, very thin to thin bedded; irregular contacts; 5-7% porosity - vuggy; mottled; interbedded with red brown mudstone (transitional to Penitentiary Member); 2-4% porosity, pinpoint; burrowed in dark red brown beds. Upper 0.3 m is one bed and has striking vugular porosity.

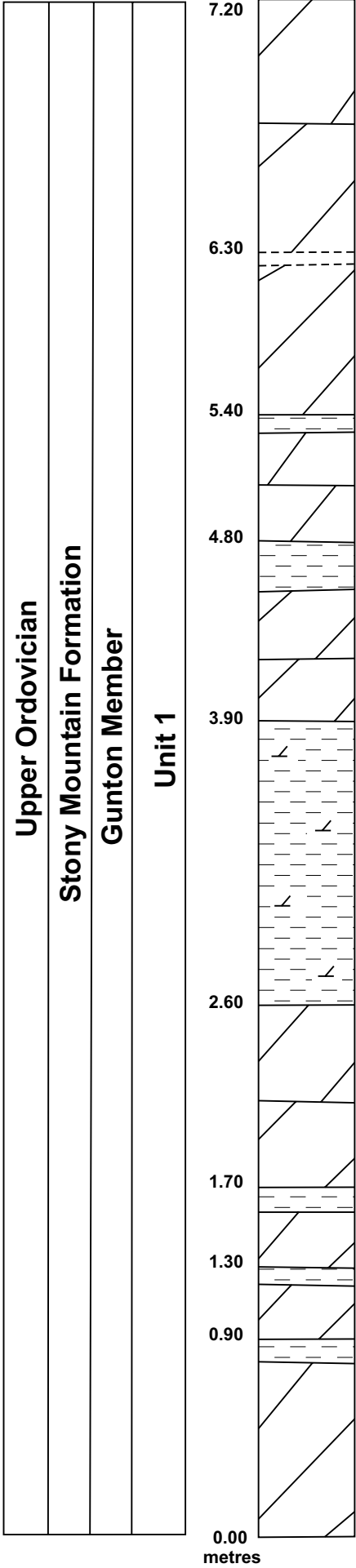
**SITE NOTES:** Quarried out, just hauling leftover crushed stone. Old east facing scarp is present east of east quarry face. It is N - S trending and appears to have been trenched out. Beds strike N - S and dip 6 degrees to west. Sample 99-95-IN-3-2. Kiln still standing. Started in 1916



### Mulder (Pit 85)



Mulder Pit 85



Dolomite; wackestone; light brown tan, very thin to thin bedded; irregular contacts; 5-7% porosity - vuggy; mottled; interbedded with red brown mudstone (transitional to Penitentiary Member); 2-4% porosity - pinpoint; burrowed in dark red brown bed

Some water





Mulder 05 - 1995-07-13, Gunton Member of the Red River Formation. JDB for scale.



Mulder 06 - 1995-07-13, Gunton Member of the Red River Formation.



Mulder 07 - 1995-07-13, Gunton Member of the Red River Formation. Erosional edge of Gunton Escarpment, looking south. Quarry is to the west.





Mulder 08 - 1995-07-13, Gunton Member of the Red River Formation. Erosional edge of Gunton Escarpment, looking west. Quarry is to the west, behind escarpment.



PRODUCT Dolomite

N.T.S. AREA 62 I/3 NW

REF. DOL 3

## NAME OF PROPERTY:

Mulder Pit 85 (Birse)

## OWNER OR OPERATOR AND ADDRESS

Mulder Construction

555 Kapelus Drive

West St. Paul, MB R4A 5A4

Lat. 50°09'15"

Long. 97°15'20"

Uncertainty: 50 m

UTM: NAD 83

624200E

5556700N

L.S. 2

Sec. 4

Tp. 14

R. 2 EPM

OBJECT LOCATED: Dolomite Quarry

MINING DIVISION Winnipeg

## DESCRIPTION OF DEPOSIT

Ordovician dolomite of the Gunton Member of the Stony Mountain Formation was quarried at the Birse quarry. The quarry beds consist of very hard yellowish grey to very pale orange finely crystalline dolomite in 5-10 cm beds. In place it is faintly mottled to pale yellowish brown. Chert nodules are sparingly present and some silification of fossils was noted. The upper 0.3 m is in one bed and has striking vugular porosity.

Chemical Properties: Parks (1916) quoted CaO at 30.44%-31.10% and MgO at 20.44%-21.44% and Goudge gives CaCO<sub>3</sub> at 52.25% and MgCO<sub>3</sub> at 44.19%.

Uses: High-magnesian lime.

## HISTORY OF EXPLORATION AND DEVELOPMENT

Mulder Pit 85 (previously called Birse quarry) is located in L.S. 2, sec. 4, about 5 km northeast of Stonewall.

1916: Ira Stratton held the quarrying rights on the southeast corner of sec. 4. The Winnipeg Supply Fuel Company, Limited obtained samples for chemical analyses but very little work had been done.

1944: Gillis Quarries, Limited held the quarry which was then 15 m in diameter and 4.5 m deep. The quarry was dry and required no pumping in wet weather. Drilling was done with a jackhammer and stone was loaded by hand into a skip that was raised by a stiffleg derrick and dumped directly into the lime kiln that stands at the edge of the quarry. The kiln is built of blocks obtained from the top 0.3 m bed and is lined with firebricks. It has a capacity of 14 tonnes of lime a day with wood fuel. In 1944 the quarry was inactive and has remained so up to 1978.

A pit about 8 m by 20 m on the south side of the kiln provided access to the draw point of the kiln.

1980: The quarry remained inactive

1988- Ownership changed hands between this time to Mulder Construction

1992: and the quarry was renamed Mulder Pit 85. Previously the quarry was under the name of Birse Quarry.

1996: The quarry remains inactive. Quarried out, just hauling leftover crushed stone

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<b>NAME OF PROPERTY</b>	Mulder Pit 85 (Birse) <b>N.T.S. AREA</b> 62 I/3 NW	<b>FILE NO.</b> 871 <b>REF.</b> DOL 3
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Associated minerals or products of value

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#### **HISTORY OF PRODUCTION**

The specific period of production is not known, except that it was prior to 1944.

Shipping Point: Stonewall

Distance from Mine: 0

Material Shipped: Lime

Destination: 32 km to Winnipeg

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#### **REFERENCES**

Baillie, A.D.

1952:

Ordovician Geology of the Lake Winnipeg and Adjacent Areas; Manitoba Mines Branch, Publication 51-6, pp.19-20.

Goudge, M.F.

1944:

Limestones of Canada, Their Occurrence and Characteristics, Part V: Western Canada; Mines Branch, Ottawa, No. 811, pp.39-41, 42.

Okulitch, V.J.

1943:

The Stony Mountain Formation of Manitoba; Royal Society of Canada, Transactions, Third Series, Volume 37, Sec. 4, p.66.

Parks, W.A.

1916:

Report on the Building and Ornamental Stones of Canada, Vol. IV, Mines Branch, Ottawa, Report No. 388, p.75.

Bamburak, James, Bezys Ruth

1995

Capital Region Study, Quarry Descriptions 1995

Lynda Bennett

1996

Personal Communication

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#### **MAP REFERENCES**

Map 62 I/3, Stonewall, (Topography), Sc. 1:50,000, Surveys & Mapping Branch, Ottawa.

Rockwood AN 35

Minerals Map of Manitoba (1980), Sc. 1:1,000,000, Manitoba Minerals Division of Manitoba.

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#### **REMARKS**

Records on the excavation of the quarry and erection of the kiln could not be located. Okulitch (1943) designated the section in this quarry as the Birse Member, but at present they are considered to be part of the Gunton Member.

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<b>NAME OF PROPERTY</b>	Mulder Pit 85 (Birse)	<b>FILE NO.</b> 871
	<b>N.T.S. AREA</b> 62 I/3 NW	<b>REF.</b> DOL 3

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**REMARKS (continued)**

DOL 3: previously referenced as DOL 5  
UQI: 1Q/ 02-04-14-02E1

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<b>Comp./Rev.</b>	NLL	KH
<b>By Date</b>	07-78	05-1996

**NAME:** MULDER PIT 88

**UQI:** 1Q/09-05-14-02E1

**EAST:** 622900

**NORTH:** 5557600

**DATE:** 1995-07-12

**OWNER:** Mulder Construction and Materials Ltd.

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** Yes

**LOCATION:** Stonewall area, 09-05-14-02E1

**SIZE:** Small

**THICKNESS:** 7.5 m

**OVERBURDEN:** 3.7 - 4.3 m

**USE:** Crushed stone

**REFER:** Bannatyne (1988)

**M.I.C. NO:**

**MAPS:** 62I/3, Rockwood AN35

**PHOTO:** 88-6-24: blasting; 88-7-13: blasting; 88-2-12, 13: small quarry; 14, 15: large quarry

**JOINTS:**

**FORMATION:** Stony Mountain: Gunton Member

**FRACTURES:** Blocky

**FOSSILS:**

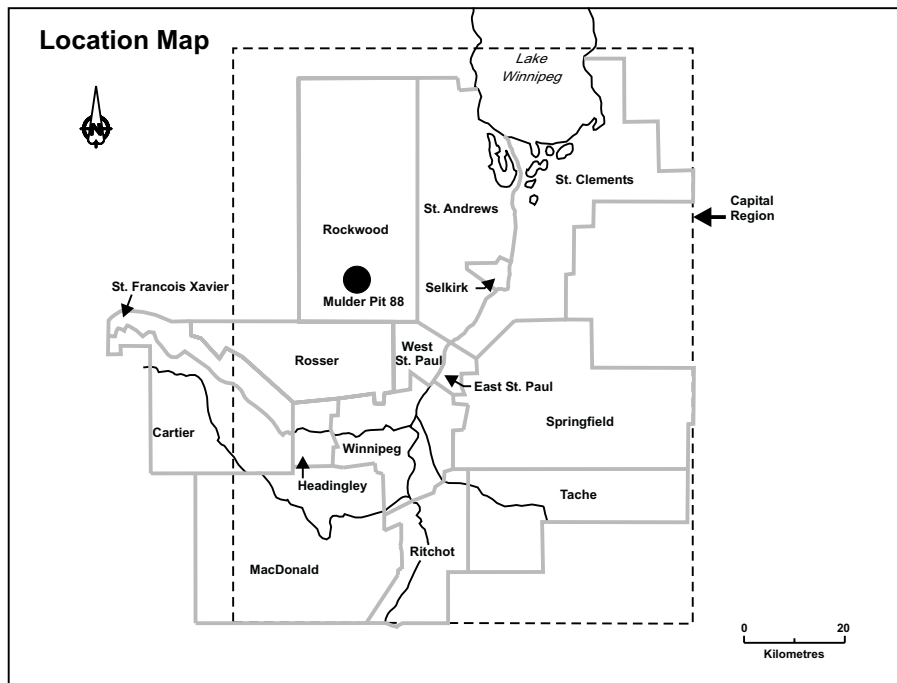
**MINERAL:**

**SECTION:** STONY MOUNTAIN FORMATION:

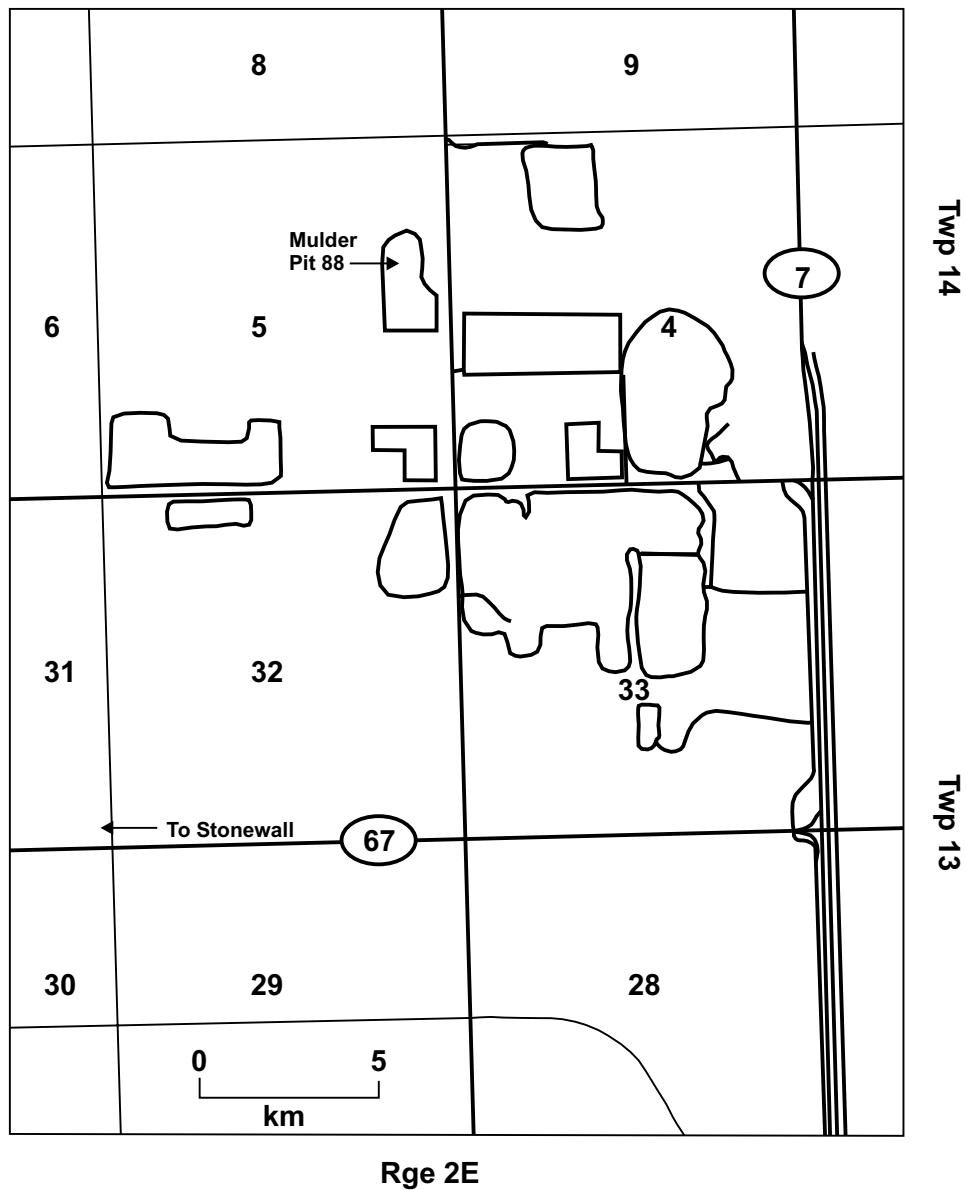
GUNTON MEMBER (7.5 m): dolomite; light brown tan; very freshly quarried, therefore very silty; very thin to medium bedded; wackestone; 3-6% porosity - vuggy; very to fine to medium crystalline.

**SITE NOTES:** New quarry since 1995. No pits are present. Overburden to the west is 5.2 to 5.5 m thick. A large area is cleaned of overburden and ready to blast. Area to the west is not economical right now. 0.8 m of Gunton is left behind due to high water table. Started crushing in March 1995 for Wilkes and Kenastin (6AM - 8PM). At peak times, 350 trucks 1 day at 8000 tonnes/day are hauled out.

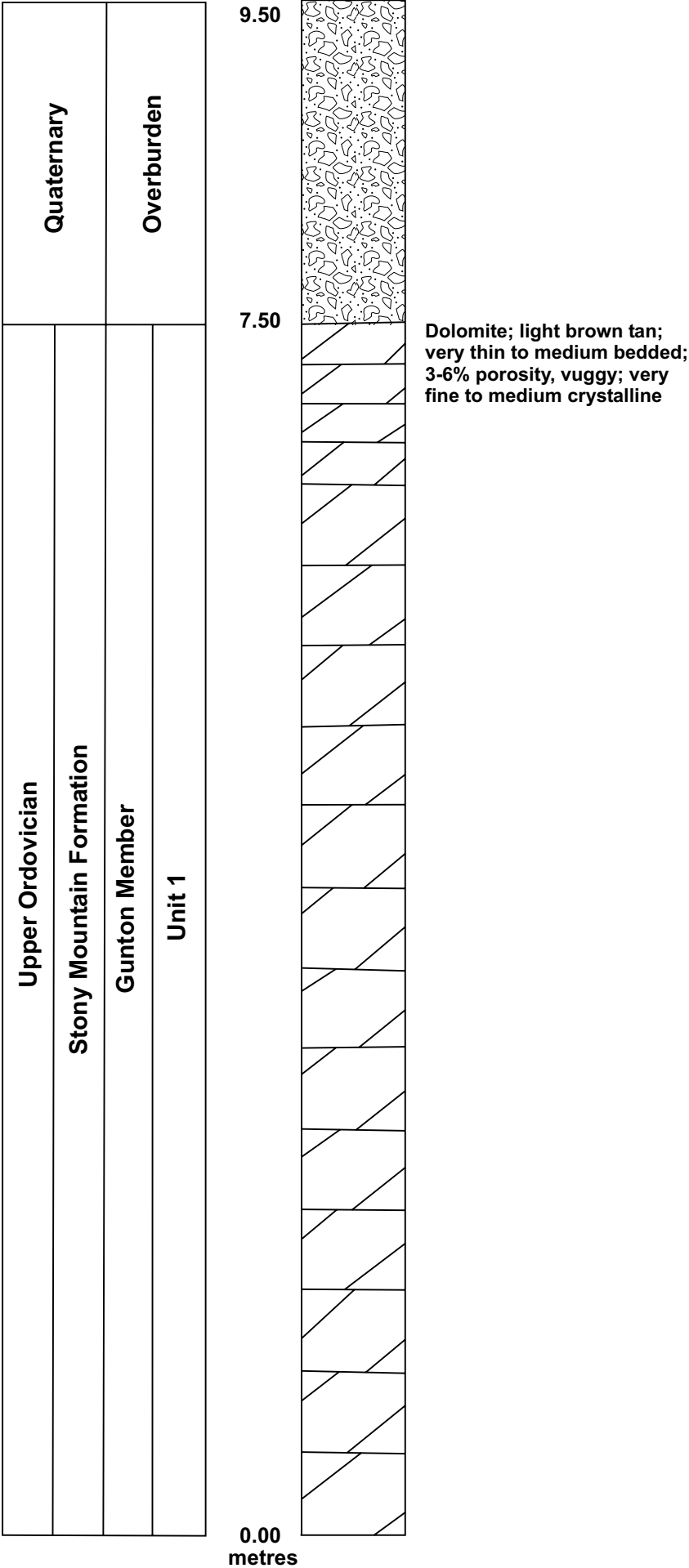




### Mulder Pit 88



Mulder Quarry Pit 88





Mulder 01



Mulder 04

Mulder 01 & 04 - 1995-05-12, Gunton Member of the Stony Mountain Formation. Large quarry, view to the west and northwest.



Mulder 02



Mulder 03

Mulder 02 & 03 - 1995-05-12, Gunton Member of the Stony Mountain Formation. Small quarry, view to the northeast and east.



Mulder 01 - 1995-05-12, Gunton Member of the Stony Mountain Formation. Large quarry, view towards the west.



Mulder 04 - 1995-05-12, Gunton Member of the Stony Mountain Formation. Large quarry, view towards the northwest.





Mulder 02 - 1995-05-12, Gunton Member of the Stony Mountain Formation. Small quarry, view towards the northeast.



Mulder 03 - 1995-05-12, Gunton Member of the Stony Mountain Formation. Small quarry, view towards the east.





Mulder 88-3 - 1995-05-12, Gunton Member of the Stony Mountain Formation. View towards the east, from the south berm. Stripped off area in foreground, quarries in background with blast in background.

-----  
PRODUCT Crushed Stone

N.T.S. AREA 62 I/3 NW

REF. DOL 7

-----  
**NAME OF PROPERTY:**

Mulder Pit 88

**OWNER OR OPERATOR AND ADDRESS**Mulder Construction & Materials L.  
P.O. Box 6, Gro.166, R.R 1B  
West St. Paul, MB R4A 5A4

Lat.	Long.	Uncertainty: 50 m
UTM: NAD 83	622900E	5557600N
L.S. 9	Sec. 5	Tp. 14
		R. 2 EPM

-----  
**OBJECT LOCATED:** Quarry

MINING DIVISION Winnipeg

-----  
**DESCRIPTION OF DEPOSIT**

Stony Mountain Formation: Gunton Member. Overburden to the west is 5.2-5.5 m thick. Area to the west is not economical (1995). 0.8m of the Gunton member is left behind due to high water table.

The Gunton member is light brown to tan and very silty (because it was just quarried when visited). The bedding is very thin to medium and there is wackestone present. The porosity is 3-6% and it is vuggy. Crystalline is very fine.

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**HISTORY OF EXPLORATION AND DEVELOPMENT**

1995: Quarrying began  
Started crushing in March of 1995 for Wilkes and Kenaston. At peak times there was 350 trucks/day at 8000 tonnes/day.

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Associated minerals or products of value

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<b>NAME OF PROPERTY</b>	Mulder Pit 88 Quarry	<b>FILE NO.</b> 1040
	<b>N.T.S. AREA</b> 62 I/3 NW	<b>REF.</b> DOL 7

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#### **HISTORY OF PRODUCTION**

Production commenced early 1995 and continued production of crushed stone through the year.

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#### **REFERENCES**

Bamburak, James, Bezys, Ruth  
1995  
Capital Region Study, Quarry Descriptions 1995.

Lynda Bennett  
1996  
Personal Communication

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#### **MAP REFERENCES**

Map 62 I/3, Stonewall, (Topography), Sc. 1:50,000, Surveys and Mapping Branch, Ottawa.

Rockwood AN35

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#### **REMARKS**

UQI: 1Q/ 09-05-14-02E1

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<b>Comp./Rev.</b>	KH
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<b>By Date</b>	May 24, 1996
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**NAME:** BISON QUARRY

**UQI:** 1Q/14-04-14-02E1

**EAST:** 623800

**NORTH:** 5558525

**DATE:** 1995-06-27

**OWNER:** Riverside Gravel (1985) Inc.

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** Yes

**LOCATION:** Stonewall area; 14-04-14-2E1

**SIZE:** Very large

**THICKNESS:** 4.9 m (4.2 m in pit)

**OVERBURDEN:** 0.5 to 2.0 m

**USE:** Crushed stone

**REFER:** Bannatyne (1988)

**M.I.C. NO:**

**MAPS:** 62I/3, Rockwood AN35

**PHOTO:** 88-1-11: overburden; 12, 13: pit; 14: section; 15, 16: top; 17 to 19: panoramic; 88-02-11: trucks

**JOINTS:** 30°

**FORMATION:** Stony Mountain; Gunton/Penitentiary members

**FRACTURES:** Blocky

**FOSSILS:** Worm burrows (CHONDRITES)

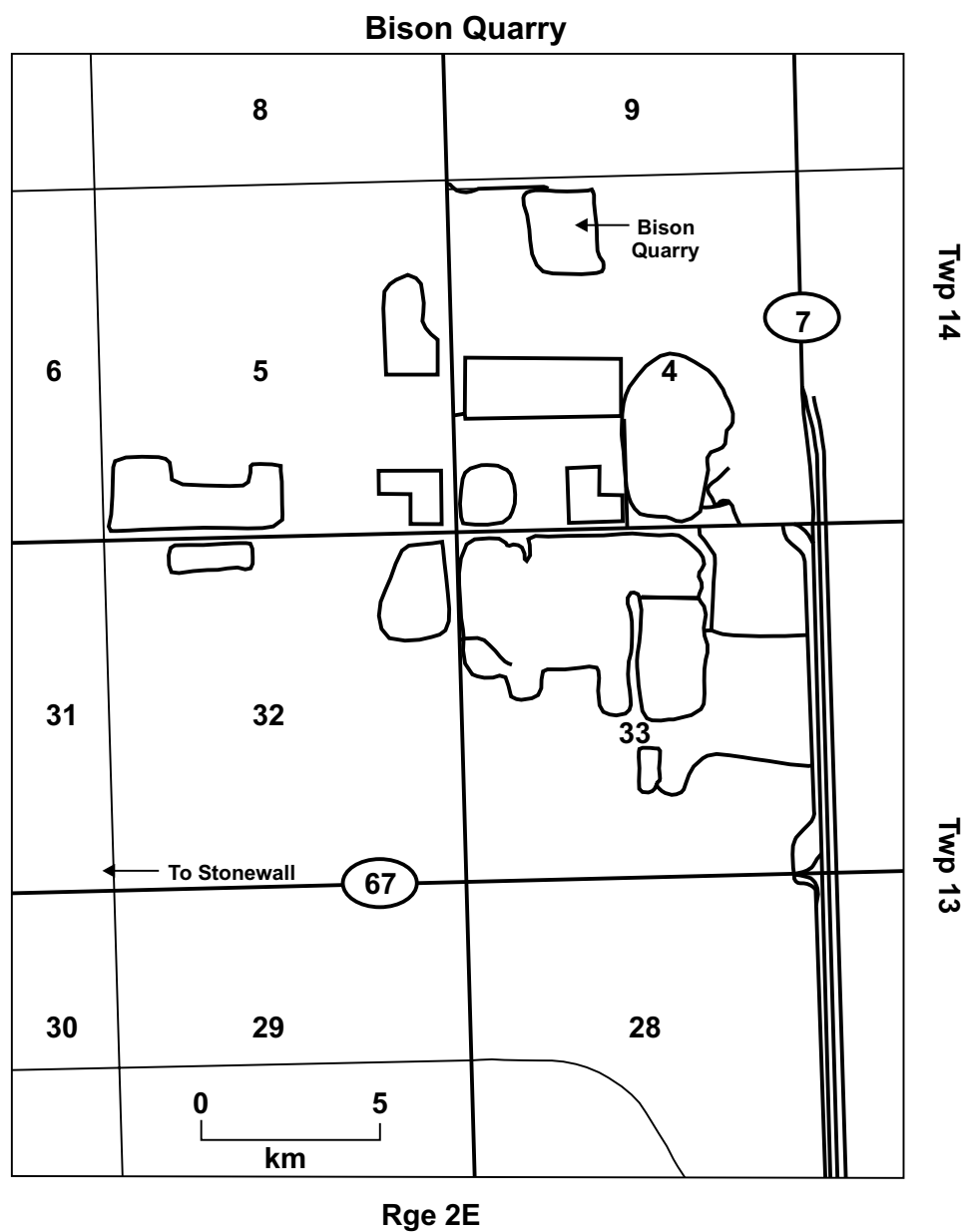
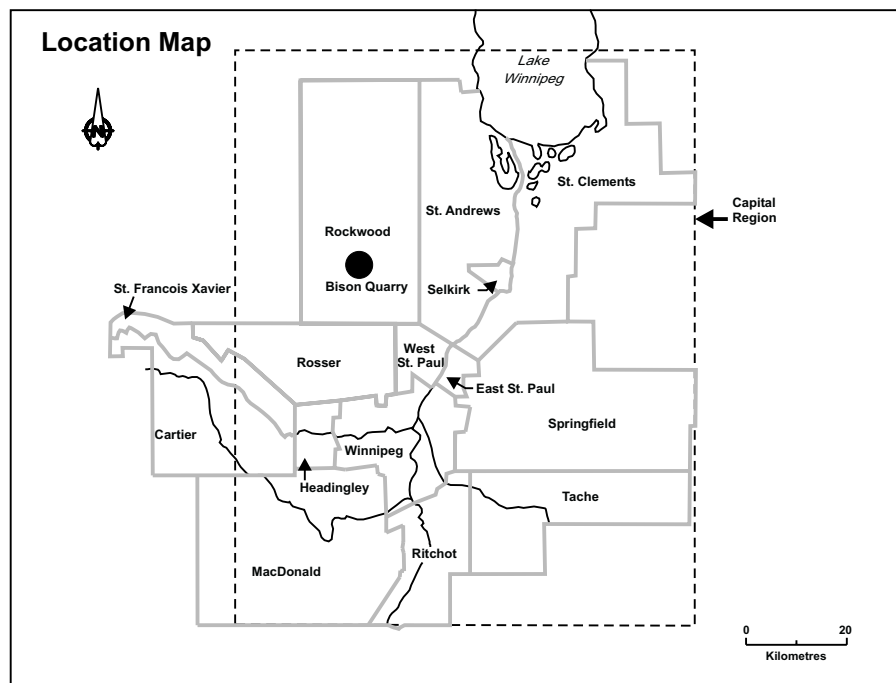
**MINERAL:**

**SECTION:** STONY MOUNTAIN FORMATION:

GUNTON MEMBER (4.9 m): dolomite; light brown buff (weathered and fresh); wackestone; thin to medium bedded; 8-10% porosity - vuggy; fine to medium crystalline; some recessive beds at top (dolomite); interbedded red brown to blue green mudstone at base; some mottling.

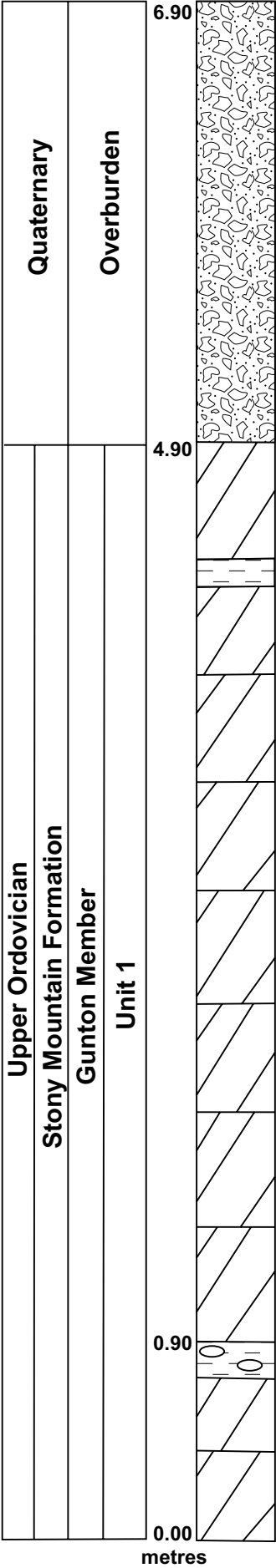
PENITENTIARY MEMBER (4.2 m): dolomite; interbedded red to brown to blue green mudstone; medium to thick bedded; fine grained; abundant worm burrows (CHONDRITES); recessive seams are red brown and extensively burrowed; 1-2% porosity - pinpoint.

**SITE NOTES:** Overburden: 0.5 - 2.0 m



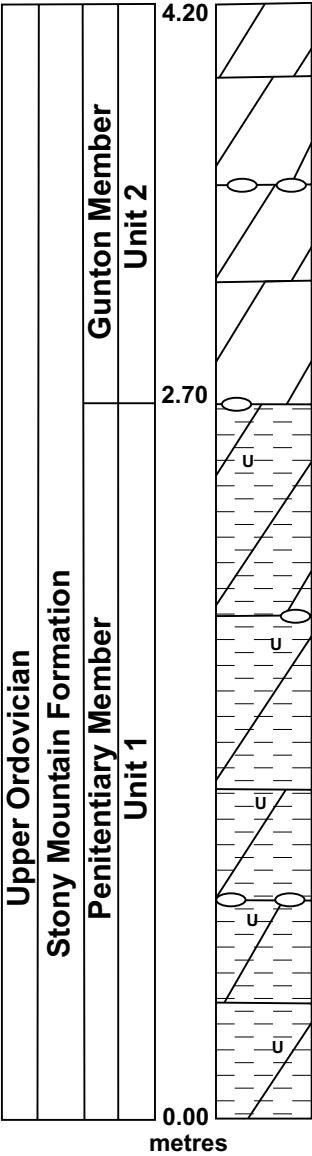


Bison Quarry



Dolomite; light brown buff (weathered & fresh); wackestone; thin to medium bedded; 8-10% porosity - vuggy; fine to medium crystalline; some recessive beds at top; interbedded red brown to blue green mudstone at base; some mottling

Bison Pit



Dolomite; interbedded red to brown to blue green mudstone; medium to thick bedded; fine grained; abundant worm burrows (*Chondrites*); recessive seams are red brown and extensively burrowed; 1-2% porosity - pinpoint

Water level



Bison 01 - 1995-06-27, 2 m overburden above bedrock pavement, looking southwest. Gunton Member of the Stony Mountain Formation.



Bison 02 - 1995-06-27, Gunton Member overlying Penitentiary Member of the Stony Mountain Formation. JDB for scale.





Bison 03 - 1995-06-27, Gunton Member of the Stony Mountain Formation. JDB standing on first bench, top of Penitentiary Member.



Bison 04 - 1995-06-27, Contact of Gunton Member overlying Penitentiary Member of the Stony Mountain Formation. Hammer just below contact.





Bison 08



Bison 07



Bison 06

Bison 08 to 06 - 1995-06-27, Bison Quarry. Gunton Member of the Stony Mountain Formation. View looking southeast, south and southwest.



Bison 08 - 1995-06-27, Bison Quarry. Gunton Member of the Stony Mountain Formation. View looking southeast.



Bison 07 - 1995-06-27, Bison Quarry. Gunton Member of the Stony Mountain Formation. View looking south.



Bison 06 - 1995-06-27, Bison Quarry. Gunton Member of the Stony Mountain Formation. View looking southwest.



PRODUCT Crushed Stone

N.T.S. AREA 62 I/3 NW

REF. DOL 6

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**NAME OF PROPERTY:**

Bison Quarry

**OWNER OR OPERATOR AND ADDRESS**Riverside Gravel Inc.  
30 Stapleton Street  
Winnipeg, MB R2L 2E2

Lat.

Long.

Uncertainty: 50 m

UTM: NAD 83

623800E

5558525N

L.S. 14

Sec. 4

Tp. 14

R. 2 EPM

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**OBJECT LOCATED:**Quarry

MINING DIVISION Winnipeg

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**DESCRIPTION OF DEPOSIT**

The Quarry is a Stony Mountain Formation with Gunton and Penitentiary members. The overburden is from 0.5-2.0 m. The Gunton member is light brown buff and thin to medium bedded. Porosity is from 8-10% and there are some successive beds, especially at the top. At the base are interbedded red brown to blue green mudstone.

The Penitentiary member is dolomite. There are interbedded red to brown to blue green mudstone and the beds are medium thickness to thick. There is an abundance of worm burrows and recessive seams are present. The seams are red brown and extensively burrowed.

The fractures at this site are blocky and the joints are 30 degrees.

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**HISTORY OF EXPLORATION AND DEVELOPMENT**

1992- The Bison Quarry has been in continuous operation since 1992  
1995: producing crushed stone. The quarry/pit owner is the Bison Rock and Asphalt Products Ltd., which is located at 30 Stapleton St. in Winnipeg, Manitoba but the holder is Riverside Gravel (1985) Inc.

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Associated minerals or products of value

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<b>NAME OF PROPERTY</b>	Bison Quarry	<b>FILE NO.</b> 1039
	<b>N.T.S. AREA</b> 62 I/3	<b>REF.</b> DOL 6

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#### **HISTORY OF PRODUCTION**

Production of crushed stone has been continuous at this site since 1992 (if not earlier)

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#### **REFERENCES**

Bamburak, James, Bezys, Ruth  
1995  
Capital Region Study, Quarry Descriptions 1994

Bannatyne, B.B.  
1988  
Dolomitic Resources of Southern Manitoba

Lynda Bennett  
1996  
Personal Communication

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#### **MAP REFERENCES**

Map 62 I/3, Stonewall, (Topography), Sc. 1:50,000, Surveys & Mapping  
Branch, Ottawa

Rockwood AN 35

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#### **REMARKS**

UQI: 1Q/ 14-04-14-02E1

Thickness: 4.2 m in pit  
              4.9 m in quarry

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**Comp./Rev.** KH

**By Date** May 24, 1996

**NAME:** STANDARD QUARRY SOUTH

**UQI:** 1Q/11-33-13-02E2

**EAST:** 623785

**NORTH:** 5556350

**DATE:** 1995-07-12

**OWNER:** Standard Limestone Quarries

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** Yes

**LOCATION:** Stonewall area, 11-33-13-02E2

**SIZE:** Very large

**THICKNESS:** 6.7 m (2.3 - 3.0 m in pit)

**OVERBURDEN:** 1.5 - 2.0 m

**USE:** Crushed stone

**REFER:** Christopher (1965); Bannatyne (1988)

**M.I.C. NO:** 872

**MAPS:** 62I/3, Rockwood AN35

**PHOTO:** 88-2-17 to 19: crusher; 16: old quarry; 88-7-4, 5: pit; 20: Jim on face; 21: joint face; 22 to 24: joint offset; 25: pit

**JOINTS:** 210°, 191°, 100°

**FORMATION:** Stony Mountain: Gunton/Penitentiary members

**FRACTURES:** Blocky

**FOSSILS:** Favositids

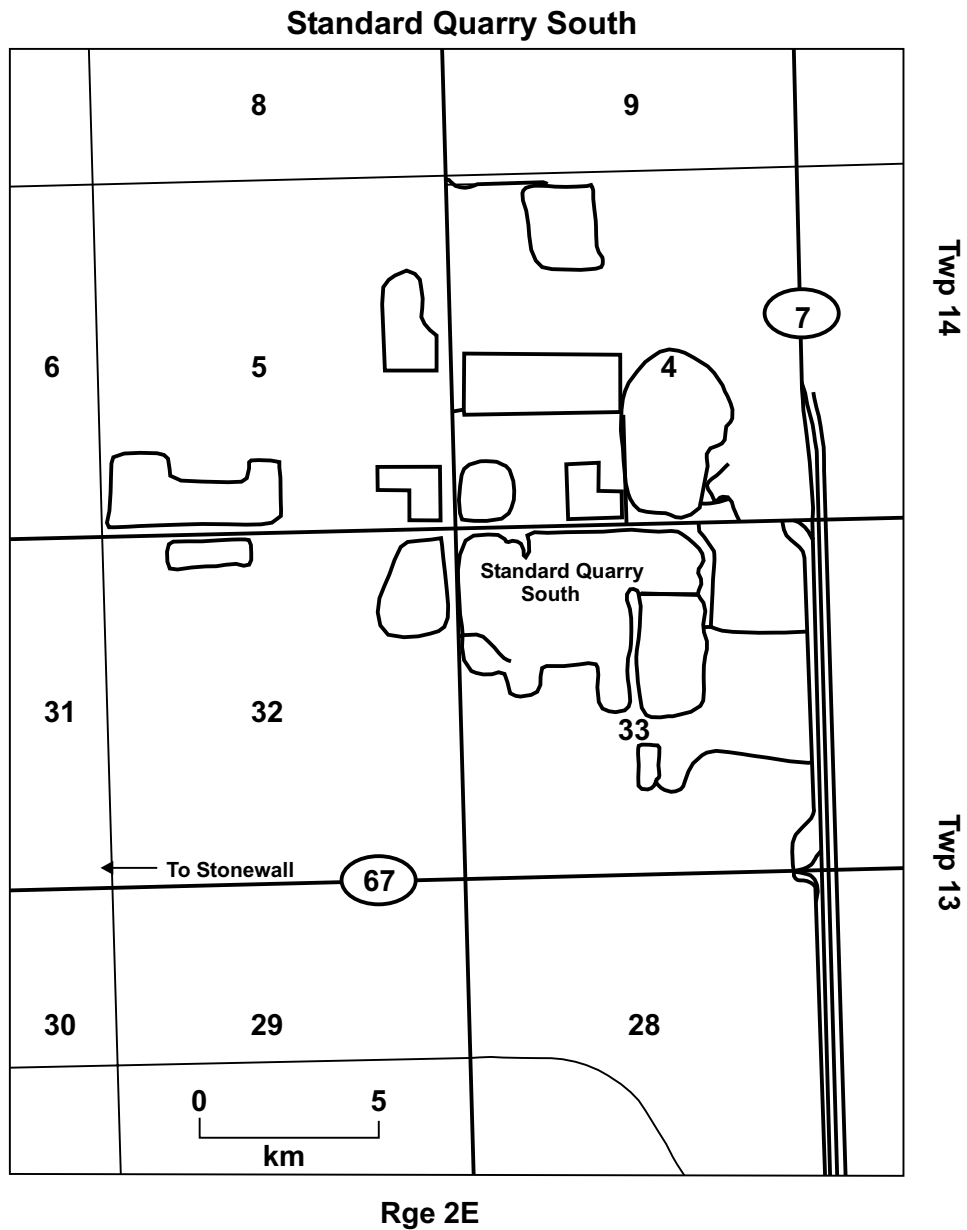
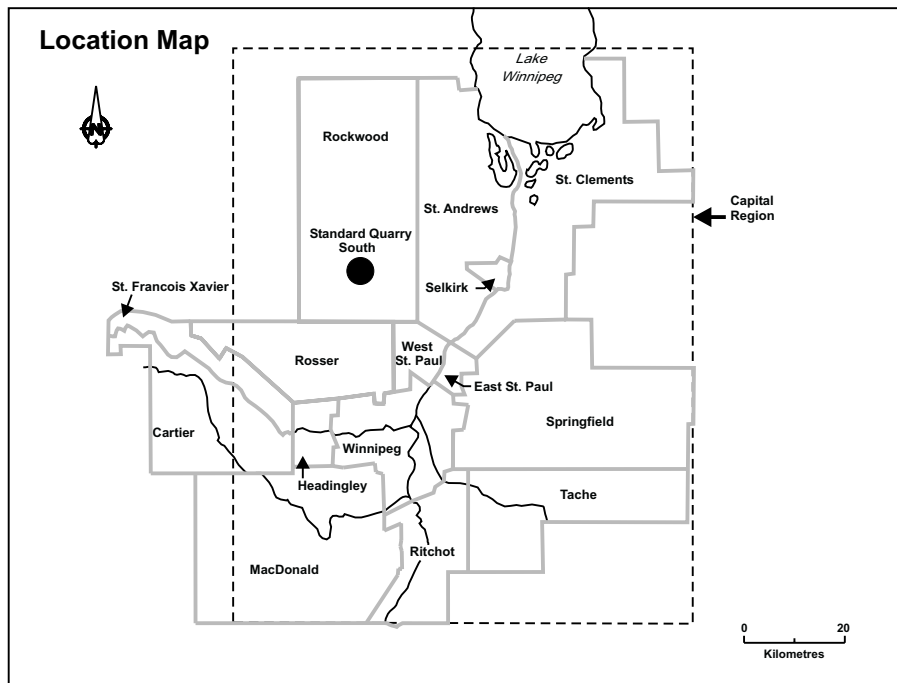
**MINERAL:** Chert nodules

**SECTION:** STONY MOUNTAIN FORMATION:

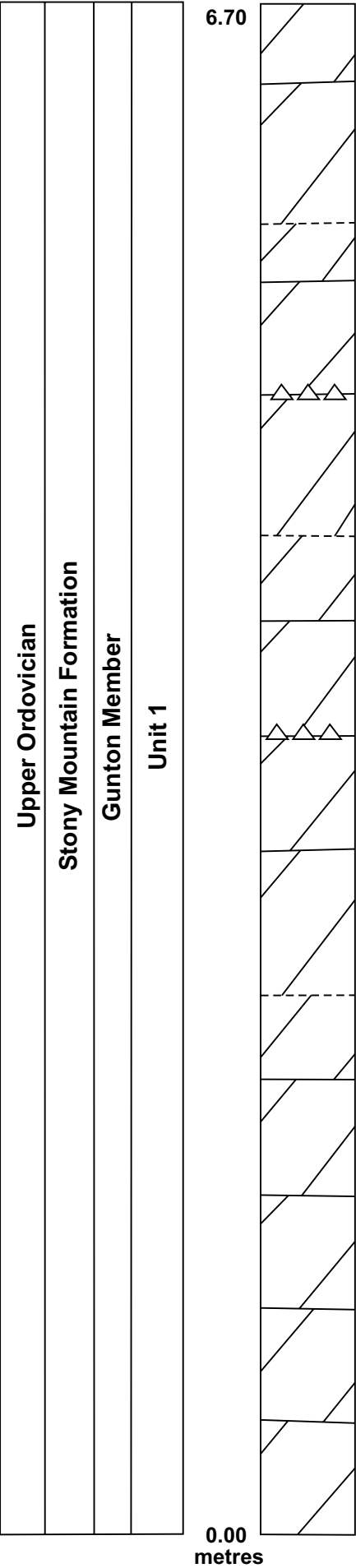
GUNTON MEMBER (6.7 m): dolomite; wackestone; light brown tan; thin to thick bedded; 5-10% porosity - vuggy; some prominent fracture/joint faces; very fine to fine crystalline; sucrosic; 2-3 clay seams that stand out due to weathering; joint face is very flat and bare - quite prominent and distinct; scattered favositid fragments; rare chert; infilled joint (1-2 cm grey black clay - Cretaceous?)

PENITENTIARY MEMBER (1.5 m): dolomite; red brown mudstone; some green grey.

**SITE NOTES:** Sample: 99-92-IN-28-0 to 12 (pit samples)  
Sample: 99-92-IN-28-2-1 to 8 (quarry samples)  
Operated in 1963

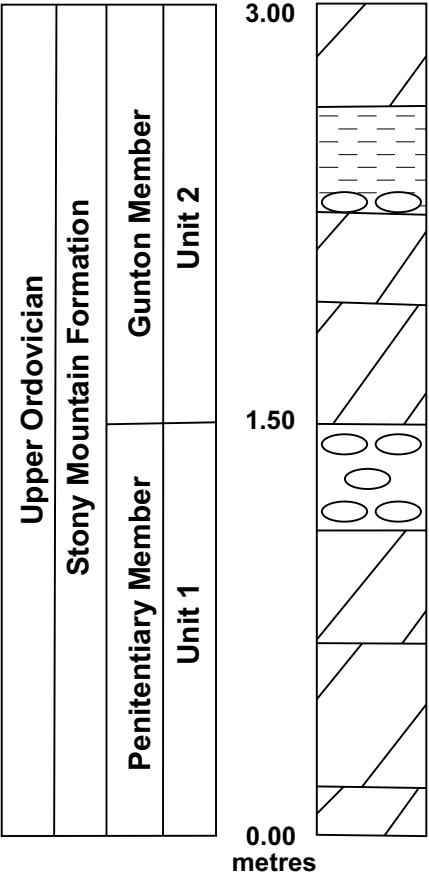


Standard Quarry South



Dolomite; wackestone; light brown tan; thin to thick bedded; 5-10% porosity - vuggy; some prominent fracture/joint faces; very fine to fine crystalline; sucrosic; 2 to 3 clay seams that stand out due to weathering; joint face is very flat and bare, quite prominent and distinct; scattered favositid fragments, rare chert

Pit



Red brown mudstone; some green clay

Water





Standard 01 - 1995-07-12, Gunton Member overlying the Penitentiary Member of the Stony Mountain Formation. East wall of quarry near the northeast end.



Standard 02



Standard 03



Standard 04

Standard 02-04 - 1995-07-12, Crusher and sorter at Standard Quarry South.



Standard 02 - 1995-07-12, Crusher and sorter at Standard Quarry South.



Standard 03 - 1995-07-12, Crusher and sorter at Standard Quarry South.



Standard 04 - 1995-07-12, Crusher and sorter at Standard Quarry South.



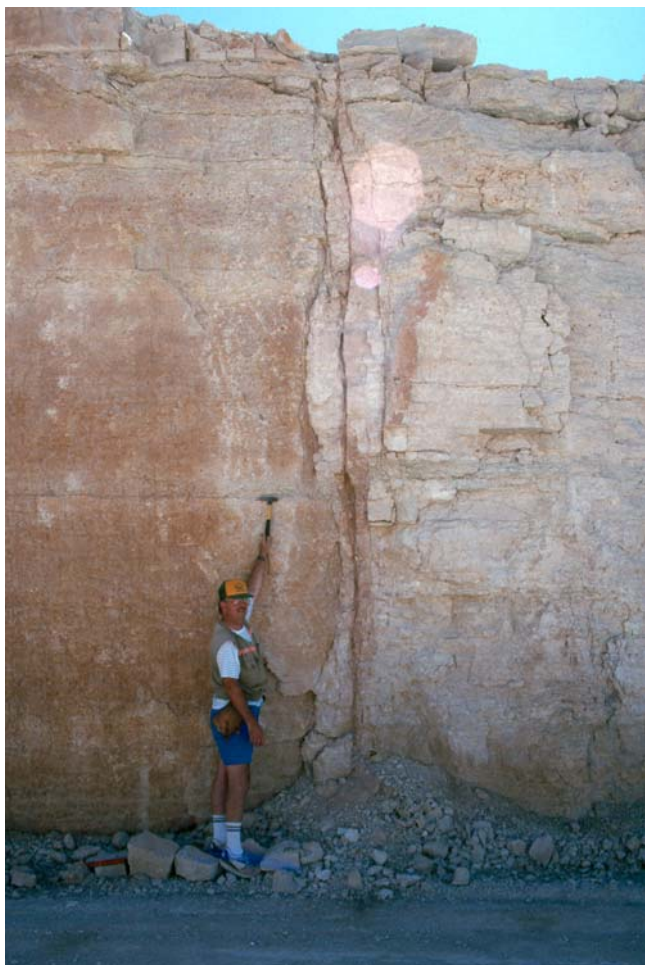


Standard 05



Standard 06

Standard 05 and 06 - 1995-07-12, Gunton Member of the Stony Mountain Formation. At south end of the quarry, view towards the north and northeast. Smooth fracture surface on east wall. JDB for scale.



Standard 08 and 09 - 1995-07-12, Gunton Member of the Stony Mountain Formation. At south end of the quarry. East wall with smooth fracture surface. Horizontal joint at hammer head contains blue-green clay that may have been infilled from vertical joint to right (shown filled with red oxidized clay in close-up). JDB for scale.





Standard 10 - 1995-07-12, Penitentiary Member of the Stony Mountain Formation in pit at the northwest corner of quarry. View towards the west. JDB for scale



Standard 11 - 1995-07-12, Penitentiary Member of the Stony Mountain Formation in pit at the northwest corner of quarry. View towards the east.



Standard 12 - 1995-07-12, Penitentiary Member of the Stony Mountain Formation in pit at the northwest corner of quarry. View towards the north.

**NAME:** STANDARD QUARRY NORTH

**UQI:** 1Q/06-04-14-02E1

**EAST:** 623875

**NORTH:** 5557350

**DATE:** 1995-07-13

**OWNER:** Standard Limestone Quarries

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** Yes

**LOCATION:** Stonewall area, 06-04-14-02E1

**SIZE:** Large

**THICKNESS:** 5.7 m

**OVERBURDEN:** 1.0 - 1.5 m

**USE:** Crushed stone

**REFER:** Bannatyne (1988)

**M.I.C. NO:** 872

**MAPS:** 62I/3, Rockwood AN35

**PHOTO:** 88-3-28: section and Jim; 29, 30, 31: panoramic; 32, 33: operations

**JOINTS:**

**FORMATION:** Stony Mountain: Gunton/Penitentiary members

**FRACTURES:** Blocky

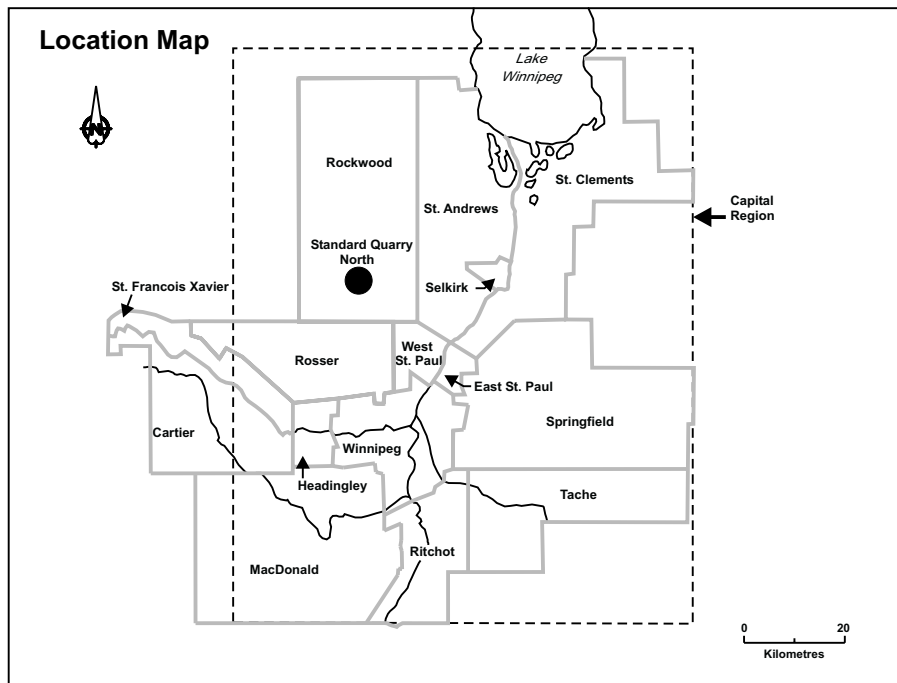
**FOSSILS:** Burrows and corals

**MINERAL:** Manganese, pyrite (in vugs)

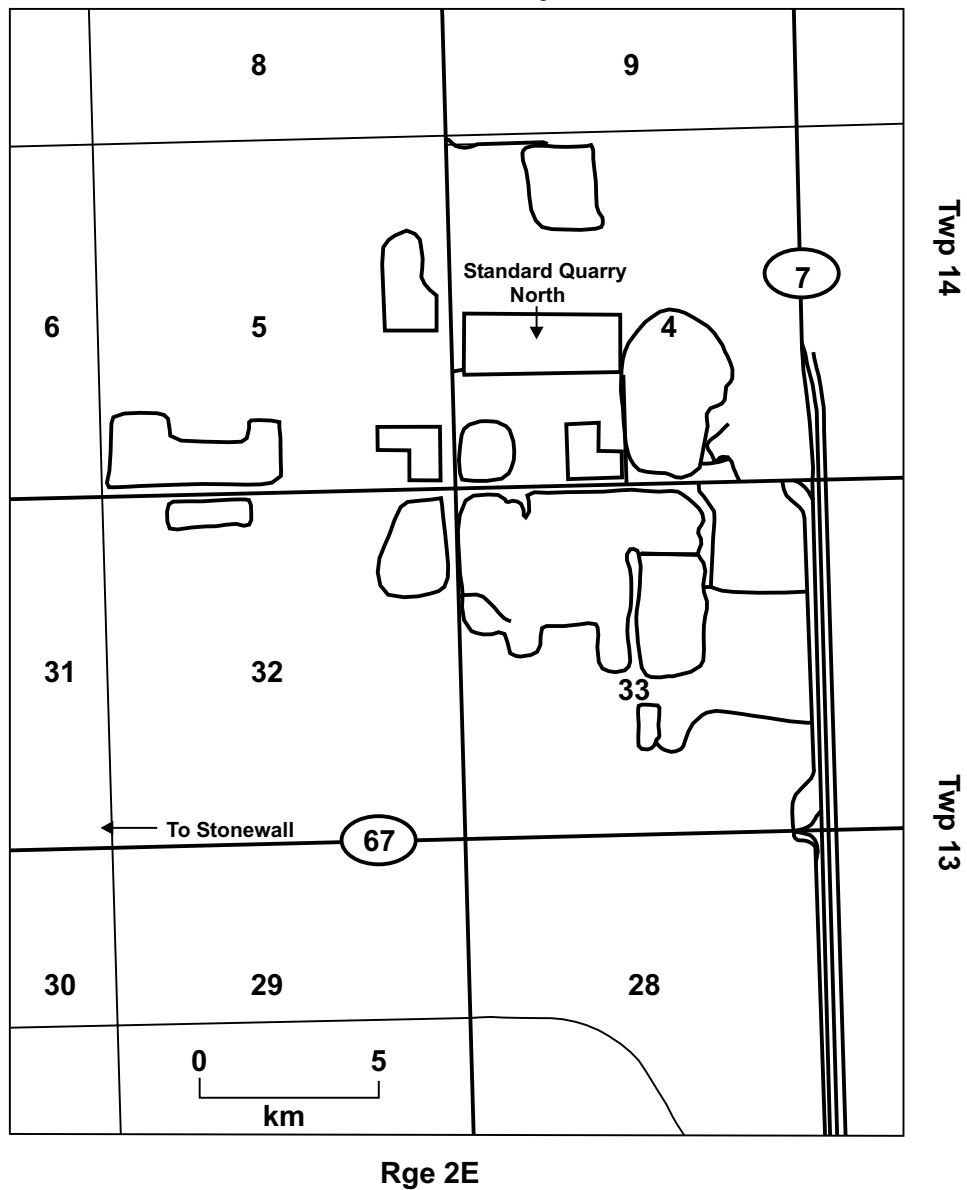
**SECTION:** STONY MOUNTAIN FORMATION:

GUNTON MEMBER (5.7 m): dolomite; light tan brown wackestone; medium to thick bedded; regular contacts; mottled; 5-8% porosity, vuggy; interbedded clay seam beds - recessive; blue grey; very fine to fine crystalline; sucrosic; favositid coral heads (10 cm); mottled with "boudinage - like" patterns; burrowed.

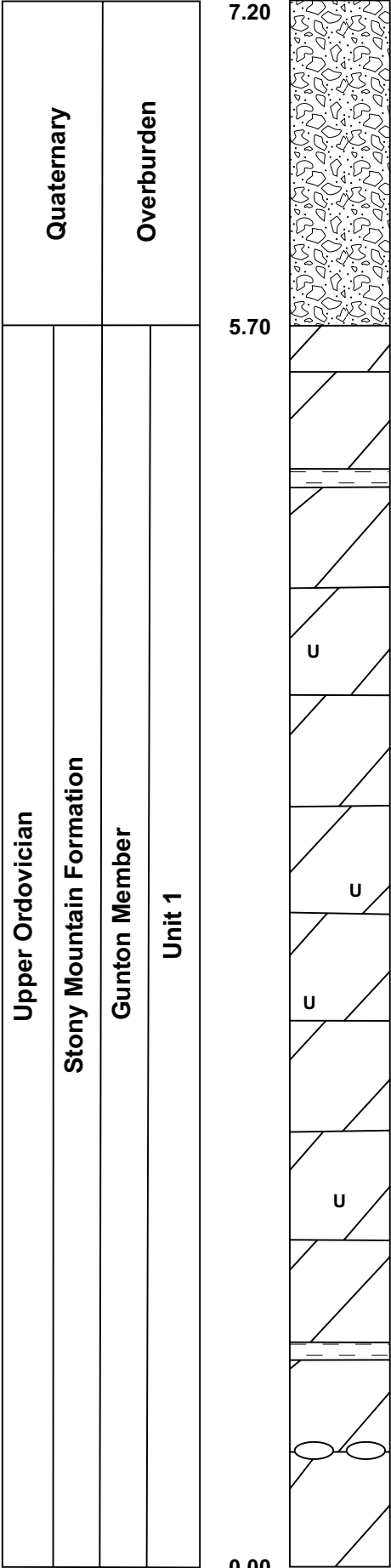
**SITE NOTES:** Sample 99-95-IN-3-3



### Standard Quarry North



Standard Quarry North



Dolomite; light tan brown wackestone; medium to thick bedded; regular contacts; mottled; 5-8% porosity - vuggy; interbedded clay seam beds-recessive; blue grey; very fine to fine crystalline; sucrosic; favositid coral heads (10cm); mottled with "boudinage-like" patterns, burrowed





Standard North 01 – 1995-05-13, Gunton Member overlying the Penitentiary Member of the Stony Mountain Formation. View towards the southeast. JDB for scale.



Standard North 02



Standard North 03



Standard North 04

Standard North 02 to 04 – 1995-05-13, Gunton Member overlying the Penitentiary Member of the Stony Mountain Formation. View to the southwest, west and northwest. JDB and van for scale.



Standard North 02 – 1995-05-13, Gunton Member overlying the Penitentiary Member of the Stony Mountain Formation. View towards the southwest. JDB and van for scale.





Standard North 03 – 1995-05-13, Gunton Member overlying the Penitentiary Member of the Stony Mountain Formation. View towards the west.



Standard North 04 – 1995-05-13, Gunton Member overlying the Penitentiary Member of the Stony Mountain Formation. View towards the northwest.



Standard North 05



Standard North 06

Standard North 05 & 06 – 1995-05-13, Gunton Member overlying the Penitentiary Member of the Stony Mountain Formation. View to the southeast and south from the north wall.



Standard North 05 – 1995-05-13, Gunton Member overlying the Penitentiary Member of the Stony Mountain Formation. View towards the southeast from the north wall.





Standard North 06 – 1995-05-13, Gunton Member overlying the Penitentiary Member of the Stony Mountain Formation. View towards the south from the north wall.



**NAME:** STANDARD QUARRY NW

**UQI:** 1Q/01-05-14-02E1

**EAST:** 623100

**NORTH:** 5556900

**DATE:** 2000-07-13

**OWNER:** Standard Limestone Quarries

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** Yes

**LOCATION:** Stonewall area, 01-05-14-02E1

**SIZE:** Large

**THICKNESS:** 3.0 m

**OVERBURDEN:** 1.0 m

**USE:** Crushed stone

**REFER:**

**M.I.C. NO:**

**MAPS:** 62I/3, Rockwood AN35

**PHOTO:** photos: 5, 6, 7; slides: 24-26

**JOINTS:**

**FORMATION:** Stony Mountain: Gunton Member

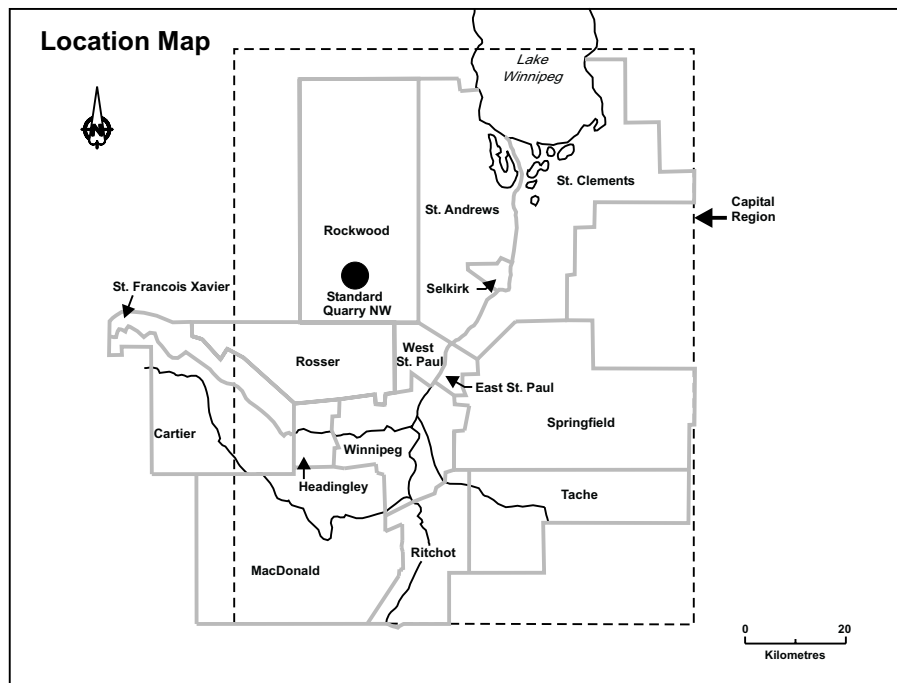
**FRACTURES:**

**FOSSILS:**

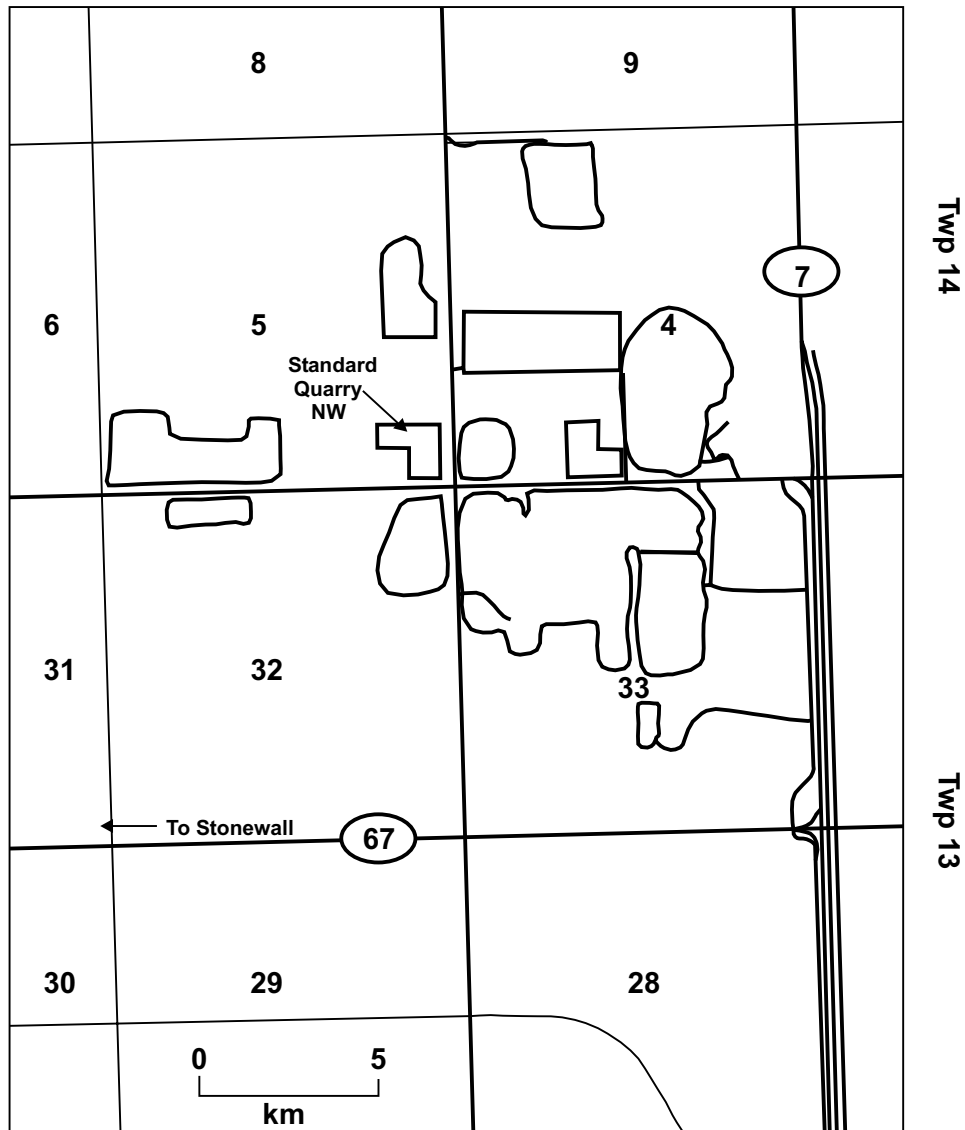
**MINERAL:**

**SECTION:** STONY MOUNTAIN FM: GUNTON MEMBER (3.0 m): dolomite; wackestone; thin to medium bedded; buff; very fractured; no large beds or blocks; porosity < 5%

**SITE NOTES:** New quarry

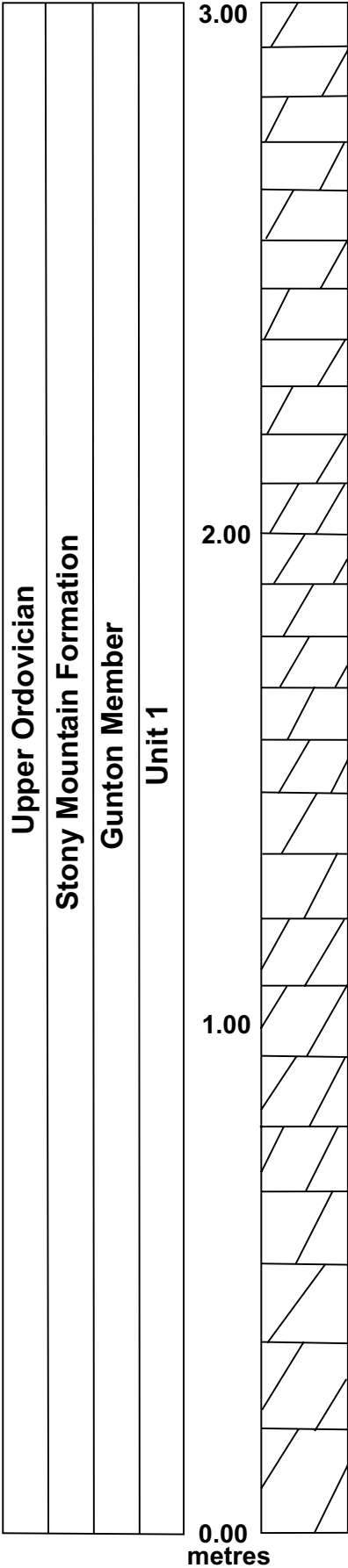


### Standard Quarry NW



Rge 2E

Standard Quarry NW



Dolomite; wackestone; thin to medium bedded; buff; very fractured; no large beds or blocks; porosity < 5%



Standard Northwest 13



Standard Northwest 14



Standard Northwest 15

Standard 13 to 15 – 2000-07-13, Gunton Member of the Stony Mountain Formation. View to the north, northeast and east.



Standard 13 – 2000-07-13, Gunton Member of the Stony Mountain Formation. View towards the north.





Standard 14 – 2000-07-13, Gunton Member of the Stony Mountain Formation. View towards the northeast.



Standard 15 – 2000-07-13, Gunton Member of the Stony Mountain Formation. View towards the east.

PRODUCT Dolomite

N.T.S. AREA 62 I/3 NW

REF. STN 3

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**NAME OF PROPERTY:**

Standard Limestone Quarry

**OWNER OR OPERATOR AND ADDRESS**Standard Limestone Quarries  
PO Box 40  
Stonewall, MB R0C 2Z0

Lat. 50°08'00"

Long. 97°15'55"

Uncertainty: 50 m

UTM: NAD 83

623875E

5557350N

L.S. 14,15,11 Sec. 33

Tp. 13

R. 2 EPM

---

**OBJECT LOCATED:** Dolomite quarry**MINING DIVISION** Winnipeg

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**DESCRIPTION OF DEPOSIT**

The quarry section exposed consists of about 7 m of buff mottled dolomite of the Gunton Member of the Ordovician Stony Mountain Formation (with the "Birse beds" near the top). It is underlain by about 4 m of fossiliferous dark red, green and purplish-grey argillaceous dolomite and dolomite shale of the Penitentiary Formation. Two dense reddish to greenish argillaceous marker beds occur in the bottom 1.5 m of the Gunton.

At L.S. 11 Gunton member is light brown tan, thin to thick bedded, wackestone - the porosity is 5-10%. Two to three clay seams stand out, due to weathering. The joint face is very flat and bare, which is prominent and distinct.

Chemical Properties: None available

Physical Properties: As above

Use: Crushed stone

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**HISTORY OF EXPLORATION AND DEVELOPMENT**

The Standard Limestone Quarry is located in L.S. 14 and 15 of Sec. 33, immediately south of the old Birse quarry, about 3.5 km northeast of Stonewall.

1961: Standard Cartage and Machine Rentals Limited opened the quarry in January of 1961. About 45 me east-west by 150 m north-south had been stripped and a cut about 6 m by 12 m by 5 m had been made. A crushing plant was installed later in the year.

1962: The quarry was worked to a depth of about 7 m. It was planned to move the crusher down into the quarry the following spring.

1964: The third bench of the quarry was being mined to a total depth from 9 to 12 m.

1966: A new impact type crusher was being used which did all the crushing in one operation. The material was then screened and trucked away.

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<b>NAME OF PROPERTY</b>	Standard Limestone Quarry <b>N.T.S. AREA</b> 62 I/3 NW	<b>FILE NO.</b> 872 <b>REF.</b> STN 3
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#### **HISTORY OF EXPLORATION AND DEVELOPMENT (continued)**

1967: The crushing and screening plant was converted from diesel to electrical power.

1968: The benches were being drilled and blasted to a depth of about 10 m instead of 3.5 m. Loading was done by front end loader.

1969: The quarry was 6 m deep in the working area, and approximately 21,253 m<sup>3</sup> of stone was removed.

1971: The Gunn Member was exposed in a small cut, 13.5 m in depth, in the south central part of the quarry.

1972: 3,441 m<sup>3</sup> of crushed dolomite was removed from the quarry to be used on PTH #59 and #100.

1973: Work was proceeding towards the west end of the quarry at a depth of 3 to 3.5 m.

1974: 34,151 m<sup>3</sup> of dolomite was removed from the quarry to be used as "A" and "B" base on PTH #2.

1978: The quarry has been extended to the northwest corner of L.S. 14 and the working face is located on the north side of the quarry. The maximum quarry dimensions are about 770 m long (east-west) by 36.5 m wide at the west end and 280 m wide at the east end.

Update: Both the Gunton and Penitentiary members have been quarried since 1964. By 1986, most of the Gunton member had been removed from l.s. 13, 14, and 15, 33-13-2 EPM (BBB)

1992- Standard Limestone Quarry, quarry location SW1/4.

1994: Material: Limestone, still in production  
NW1/4 was not yet in operation  
6-4-14-2EPM SW 1/4 was in operation

1994: SW1/4 operation stopped.  
L.S. 3 and 4 -4-14-2EPM remained in production  
NW1/4 remained in operation

1995: Operation continued in the NW1/4

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Associated minerals or products of value

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#### **HISTORY OF PRODUCTION**

1961: The quarry was opened in January by Standard Cartage and Machine Rentals Limited. About 45 m east-west by 150 m north-south had been stripped, and a cut 6 m x 12 m x 5 m had been made.

1962: The quarry was worked to a depth of 12 m.

1964: The third bench of the quarry was being excavated to a total depth of 9 to 12 m.

1968: The quarry was 6 m deep in the working area, and approximately 21,253 m<sup>3</sup> of stone was removed.

1972: 3,441 m<sup>3</sup> of crushed stone was removed from the quarry to be used on PTH #59 and #100.

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<b>NAME OF PROPERTY</b>	Standard Limestone Quarry <b>N.T.S. AREA</b> 62 I/3 NW	<b>FILE NO.</b> 872 <b>REF.</b> STN 3
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#### **HISTORY OF PRODUCTION (continued)**

1974: 34,151 m<sup>3</sup> of the stone was removed from the quarry to be used as "A" and "B" base on PTH #2.  
Shipping Point: Standard Quarry  
Material Shipped: Crushed stone  
Carrier: Truck  
Destination: Mainly Winnipeg and adjacent regions

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#### **REFERENCES**

Christopher, J.E.  
1965:  
Geological Road Log of the Winnipeg and Interlake Areas, Manitoba;  
Saskatchewan Geological Society, pp.6-7.  
Geological Association of Canada and Mineral Association of Canada  
1970:  
Guidebook, Field Trip No. 5, Lower Paleozoic of the Interlake Area,  
Manitoba, 23rd Annual Meeting, p.12 (H.R. McCabe and J. Cowan).  
Industrial Minerals Geologist's File,  
Manitoba Mineral Resources  
Manitoba Department of Highways  
1978:  
Aggregate Inventory Files - Non-Confidential  
Lynda Bennett  
1996  
Personal communication

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#### **MAP REFERENCES**

Map 12, Industrial Minerals Producers (Index), Sc. 1:1,000,000, Mineral  
Resources Division.  
Map 62 I/3, Stonewall, (Topography), Sc. 1:50,000, Surveys & Mapping  
Branch, Ottawa.  
Rockwood AN35

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#### **REMARKS**

In the late 1960's, Standard was operating a mobile crusher unit in  
Winnipeg Supply and Fuel's Lillies Farm quarry (see card 62 I/3, DOL 2).  
DOL 2: previously referenced as DOL 4  
STN 3: previously referenced as DOL 6  
UQI of L.S. 11: 1Q/11-33-13-2E2

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<b>Comp./Rev.</b>	NLL	KH
<b>By Date</b>	07-78	05-1996

**NAME:** GILLIES QUARRY (LILLIES Q)

**UQI:** 1Q/13-32-13-02E1

**EAST:** 621998

**NORTH:** 5556900

**DATE:** 1995-07-28

**OWNER:** Continental Lime Ltd/Glacier North

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** Yes

**LOCATION:** 13-32-13-02E1

**SIZE:** Medium sized quarry: 120 m x 240 m; pit: 45 m x 45 m

**THICKNESS:** 5.1 m (pit is 0.9 m)

**OVERBURDEN:** 1.5 - 2.0 m

**USE:** High Mg limes/crushed stone

**REFER:** Bannatyne (1975, 1988), Davies et al. (1962)

**M.I.C. NO:** 870

**MAPS:** 62I/3, Rockwood AN35

**PHOTO:** 88-1-2 to 4: in pit; 5. 6: of joint; 7: at quarry; 8 to 10: panoramic

**JOINTS:** 215° (across floor into walls); 125°

**FORMATION:** Stony Mountain: Gunton/Penitentiary Members

**FRACTURES:** Blocky

**FOSSILS:** Rare worm burrows, (Planolites)

**MINERAL:** Minor manganese along fractures, pyrite

**SECTION:** STONY MOUNTAIN FORMATION:

Quarry:

GUNTON MEMBER (5.1 m): dolomite; buff brown (weathered and fresh); wackestone; slightly mottled; medium to thick bedded; fine to medium crystalline; 5-10% porosity - vuggy (very well developed); blocky fractures; possible salt casts (<1 cm).

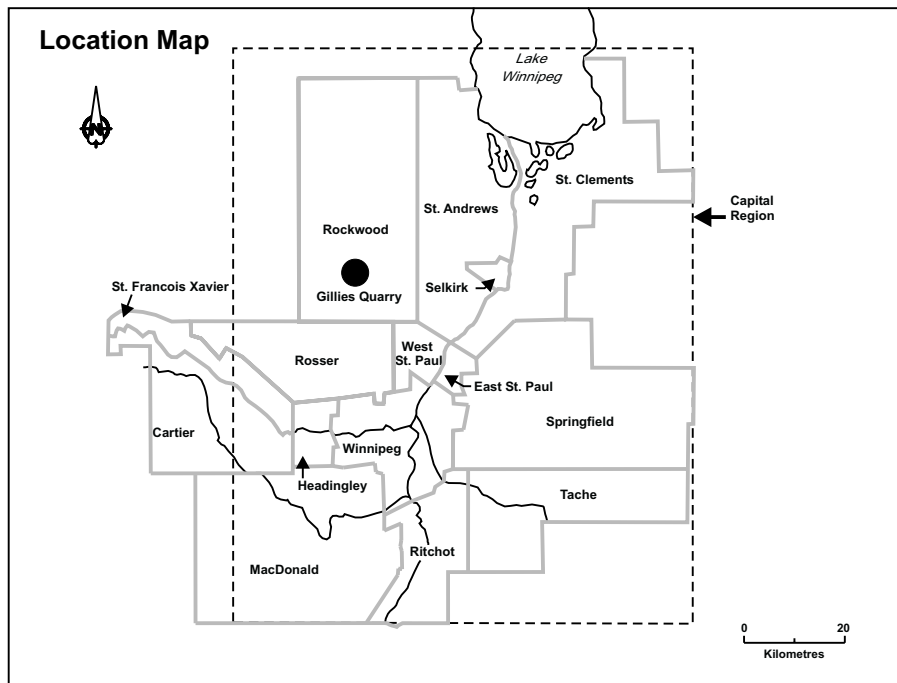
Pit:

GUNTON MEMBER (0.61 m): dolomite; buff to light brown (weathered), light brown (fresh); mudstone; massive to medium bedded; fine to medium crystalline; slightly sucrosic; 3-5% porosity - pinpoint and small vugs.

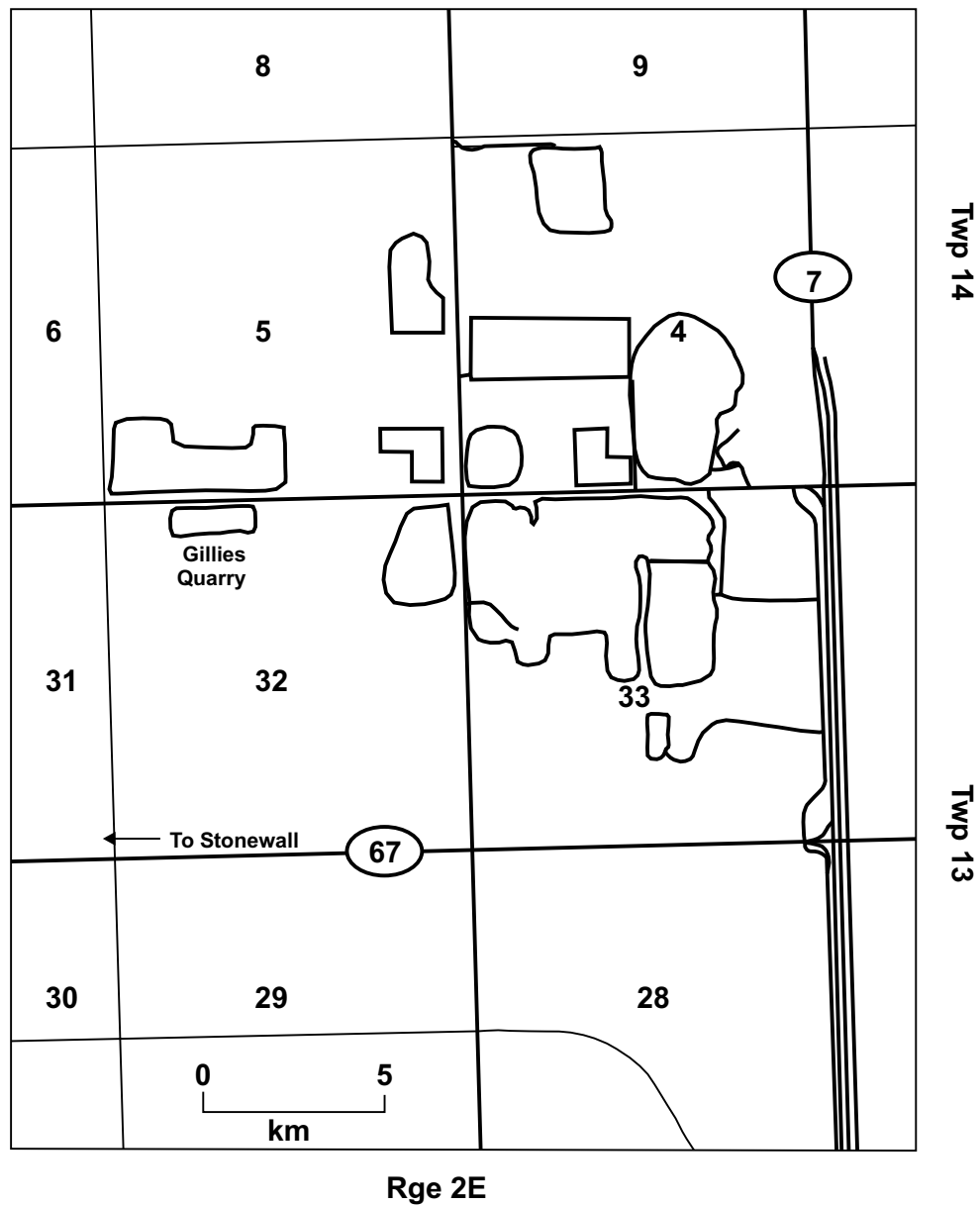
PENITENTIARY MEMBER (0.28 m): dolomite; blue grey to light grey (weathered), light grey (fresh); mudstone; two medium beds; fine to medium crystalline; massive to medium bedded; slightly sucrosic; sharp upper contact; slightly recessive; 1-2% porosity, pinpoint.

**SITE NOTES:** Started in 1957 for high Mg lime, closed in mid 70s. Started again in late 90s for crushed stone (Glacier North).

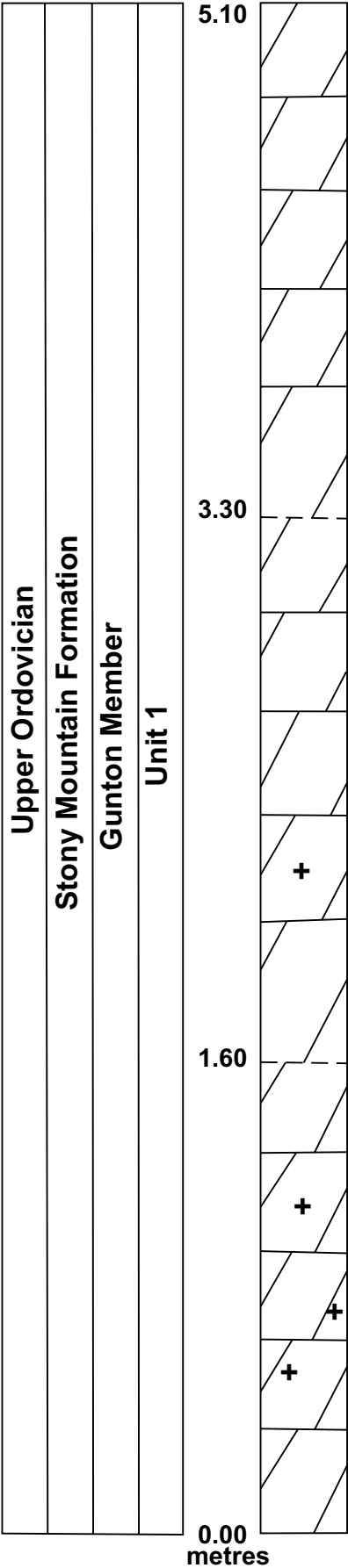




### Gillies Quarry

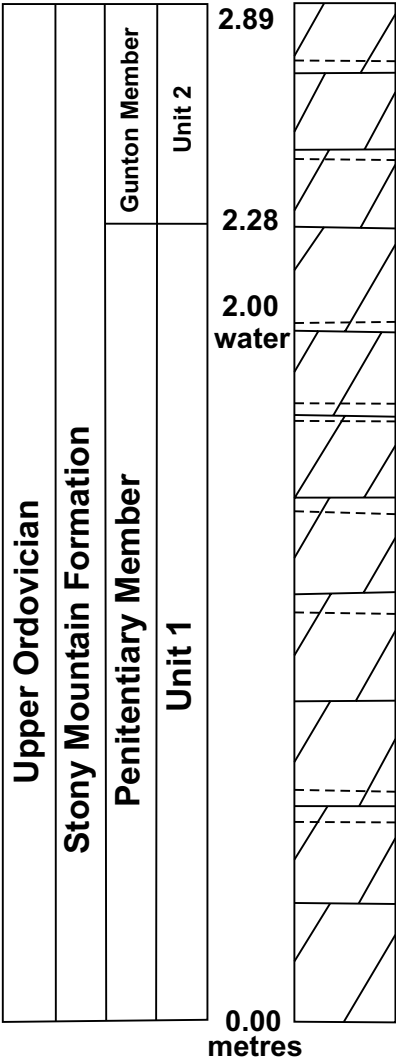


Gillies Quarry



Dolomite;buff brown (weathered and fresh); wackestone; slightly mottled; medium to thick bedded; fine - medium crystalline; 5-10% porosity - vuggy (very well developed); blocky fractures; possible salt clasts (<1cm)

Gillies Pit



Dolomite;buff to light brown (weathered), light brown (fresh); mudstone; massive to medium bedded; fine - medium crystalline; slightly sucrosic; 3-5% porosity (pinpoint and small vugs)

Dolomite; blue grey to light grey (weathered); light grey (fresh); mudstone; two medium beds; fine - medium crystalline; massive to medium bedded; slightly sucrosic; sharp upper contact; slightly recessive; 1-2% porosity, pinpoint



Gillies 01 – 1995-07-28, Penitentiary Member of the Stony Mountain Formation. Water filled. View towards the southeast.



Gillies 02 – 1995-07-28, Gillies Pit in the Penitentiary Member of the Stony Mountain Formation. Water filled. Bench is top of Penitentiary Member, in background is the Gunton Member. View towards the northwest.



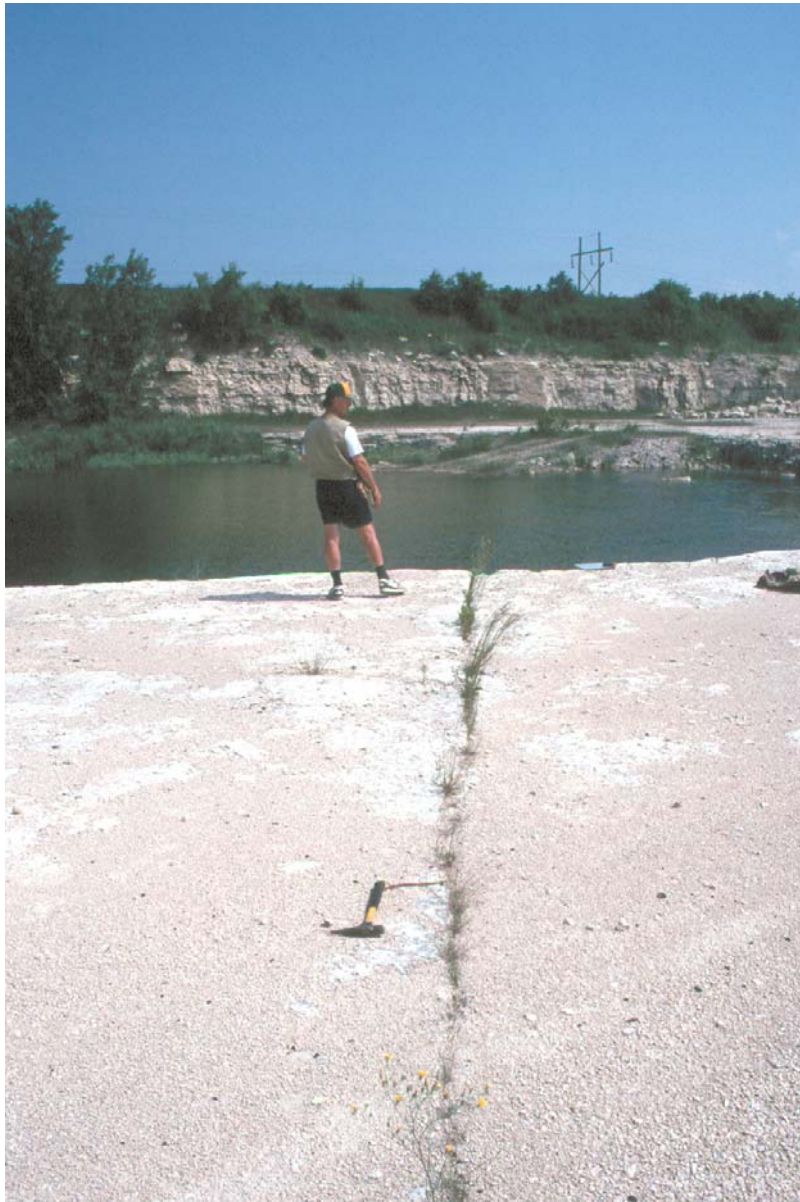
Gillies 03 – 1995-07-28, Gillies Pit in the Penitentiary Member of the Stony Mountain Formation. Water filled. Bench is top of Penitentiary Member, in background is the Gunton Member. View towards the north.





Gillies 04 – 1995-07-28, Major fracture in the Gunton Member of the Stony Mountain Formation. View towards the north.





Gillies 05 – 1995-07-28, Major fracture in the Gunton Member of the Stony Mountain Formation. View towards the north. Water filled pit is in the Penitentiary Member. JDB for scale.



Gillies 06 – 1995-07-28, Guntion Member of the Stony Mountain Formation. West wall of Gillies Quarry. JDB for scale.



Gilles 09



Gilles 08



Gilles 07

Gillies 09 to 07 – 1995-07-28, Guntion Member of the Stony Mountain Formation. View east, southeast and south.





Gillies 09 – 1995-07-28, Gunton Member of the Stony Mountain Formation. View towards the east.



Gillies 08 – 1995-07-28, Gunton Member of the Stony Mountain Formation. View towards the southeast.



Gillies 09 – 1995-07-28, Gunton Member of the Stony Mountain Formation. View towards the south.



Gilles 11



Gilles 10

Gillies 11 & 10 – 199?-00-00, Gunton Member of the Stony Mountain Formation. View towards the east and southeast.





Gillies 11 – 199?-00-00, Gunton Member of the Stony Mountain Formation. View towards the east.



Gillies 10 – 199?-00-00, Gunton Member of the Stony Mountain Formation. View towards the southeast.



PRODUCT Dolomite

N.T.S. AREA 62 I/3 NW

REF. DOL 2

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**NAME OF PROPERTY:**

Gillies Quarry

**OWNER OR OPERATOR AND ADDRESS**Continental Lime Ltd.  
1325 Ellice Ave  
Winnipeg, MB

Lat. 50°09'03"

Long. 97°17'20"

Uncertainty: 50 m

UTM: NAD 83

621998E

5556900N

L.S. 13, 14 Sec. 32

Tp. 13

R. 2 EPM

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**OBJECT LOCATED:** Dolomite Quarry**MINING DIVISION** Winnipeg

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**DESCRIPTION OF DEPOSIT**

Flat-lying beds of dolomite of the Gunton Member of the Stony Mountain Formation (Ordovician) are quarried at Lillies farm. The stone is buff colored and faintly mottled with bands and patches of vugular porosity. There is uniform lithology in the upper 6.2 m bench, except a slightly argillaceous parting at 5.08 m, and a dense 7.6 cm sublithographic dolomite bed at 4.57 m below bedrock surface. The lower cut contains two dense sublithographic dolomite beds, 17.8 cm and 30.5 cm thick in a 2.89 m section of mainly mottled dolomite. The Penitentiary Member is not exposed in this quarry, but should be present immediately below the bottom of the lower cut.

Uses: High-magnesian lime.

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**HISTORY OF EXPLORATION AND DEVELOPMENT**

Lillies farm quarry, now called Gillies Quarry, is located in L.S. 13 and 14, sec. 32, 2.5 km northeast of Stonewall.

In 1957 the Winnipeg Supply and Fuel Company, Limited opened a quarry on Lillies farm, 1.6 km north and 2 km east by road from Stonewall. Several carloads of lime had been shipped for trial. In 1961 the quarry measured 120 m by 60 m by 6.2 m. There was a lower cut 30 m by 30 m by 2.9 m made in the quarry floor to check the quality of the underlying beds but it was never expanded. In 1963 the quarry measured about 240 m by 140 m but the depth remained the same. The stone was supplying the company's kiln operation at Stonewall until the plant closed in 1967. In 1970 the quarry measured about 275 m by 138 m. The rock was being used to produce high-magnesian lime at the company's lime plant in Tuxedo.

1978: The quarry has not been worked for the past several years.

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<b>NAME OF PROPERTY</b>	Gillies Quarry	<b>FILE NO.</b> 870
	<b>N.T.S. AREA</b> 62 I/3 NW	<b>REF.</b> DOL 2

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#### **HISTORY OF EXPLORATION AND DEVELOPMENT (continued)**

1995: Lillies Farm quarry was taken over by a company by the name of Continental Lime Ltd between 1978 and 1995. The quarry goes by the name Gillies Quarry. The quarry is still not in use.

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Associated minerals or products of value

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#### **HISTORY OF PRODUCTION**

The Winnipeg Supply and Fuel Company, Limited opened the quarry in 1957 to supply dolomite to their lime kilns in Stonewall. In 1967 the lime kilns at Stonewall were shut down. In 1970 the dolomite was used to supply the company's lime plant in Tuxedo.

Shipping Point: Lillies Farm  
Distance form Mine: 3.6, 43 km  
Material Shipped: Dolomite  
Carrier: truck  
Destination: Stonewall

---

#### **REFERENCES**

Bannatyne, B.B.

1971:

Industrial Minerals of the Sedimentary Area of Southern Manitoba;  
Geological Association of Canada, Special Paper No. 9, p.245.

Davies, J.F., Bannatyne, B.B., Barry, G.S. and McCabe, H.R.

1962:

Geology and Mineral Resources of Manitoba; Manitoba Mines Branch, pp.136, 170.

Industrial Minerals Geologist's File, Manitoba Mineral Resources Division.

Bamburak James, Bezys, Ruth

1995

Capital Region Study, Quarry Descriptions 1995

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#### **MAP REFERENCES**

Map 62 I/3, Stonewall, (Topography), Sc. 1:50,000, Surveys & Mapping Branch, Ottawa.

Map 12, Industrial Minerals Producers (Index), Sc. 1:1,000,000, Manitoba Mineral Resources Division.

Rockwood AN 35

ER85-1-4

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<b>NAME OF PROPERTY</b>	Gillies Quarry	<b>FILE NO.</b> 870
	<b>N.T.S. AREA</b> 62 I/3 NW	<b>REF.</b> DOL 2

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**REMARKS**

In the late 1960's, the quarry was operated for The Winnipeg Supply and Fuel Company Limited by Standard Cartage (see Card 62 I/3, STN 3), using a portable crusher.

DOL 2: previously referenced as DOL 4

UQI: 1Q/13-32-13-02E1

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<b>Comp./Rev.</b>	NLL	KH
<b>By Date</b>	07-78	05-1996

**NAME:** WHITEROCK QUARRIES LTD

**UQI:** 1Q/07-33-13-02E2

**EAST:** 624175

**NORTH:** 5555600

**DATE:** 1995-07-13

**OWNER:** Nelson River Construction

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** No

**LOCATION:** Stonewall area, 07-33-13-02E2

**SIZE:** Small

**THICKNESS:** 6.7 m

**OVERBURDEN:** 1.0-2.0 m

**USE:** Crushed stone

**REFER:** Bannatyne (1975, 1988)

**M.I.C. NO:** 874

**MAPS:** 62I/3, Rockwood AN35

**PHOTO:** 88-3-17 to 20: panoramic; 21, 22: joints; 23: section

**JOINTS:** 030°, 120°, 110° (some minor offset)

**FORMATION:** Stony Mountain: Gunton/Penitentiary members

**FRACTURES:** Blocky

**FOSSILS:** Burrows

**MINERAL:** Pyrite on joint faces

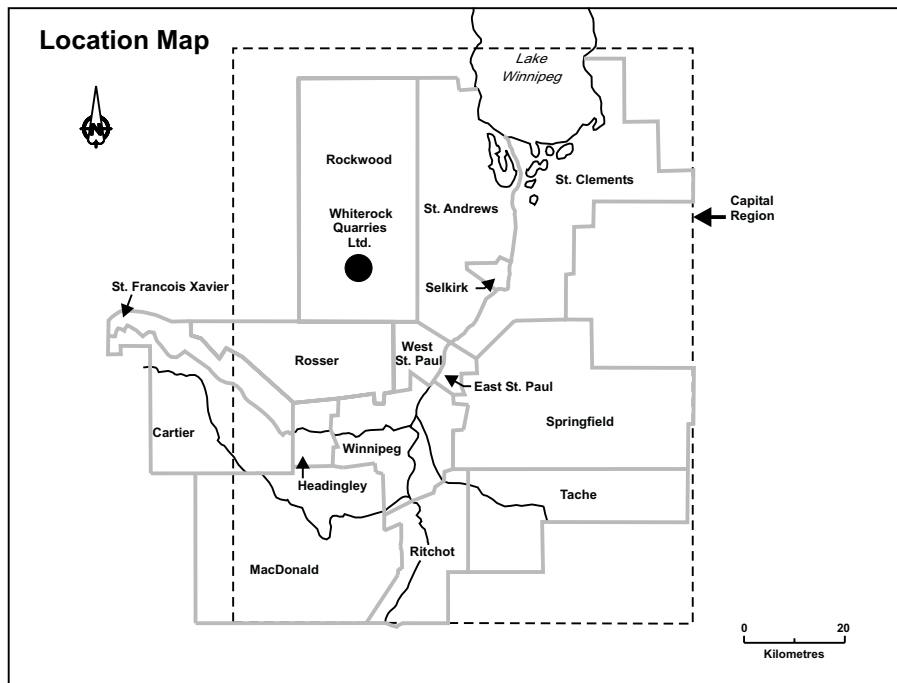
**SECTION:** STONY MOUNTAIN FORMATION:

GUNTON MEMBER (6.7 m): dolomite; light brown tan to buff; wackestone; thin to thick bedded; regular contacts; 5-7% porosity - vuggy; 10 cm clay/mudstone bed at top (1.8 m from top) recessive and blue grey; some intervals are very vuggy; minor worm burrows; some interbedded red brown mudstone beds.  
Penitentiary Member probably exists on bottom of floor, red brown mudstone.

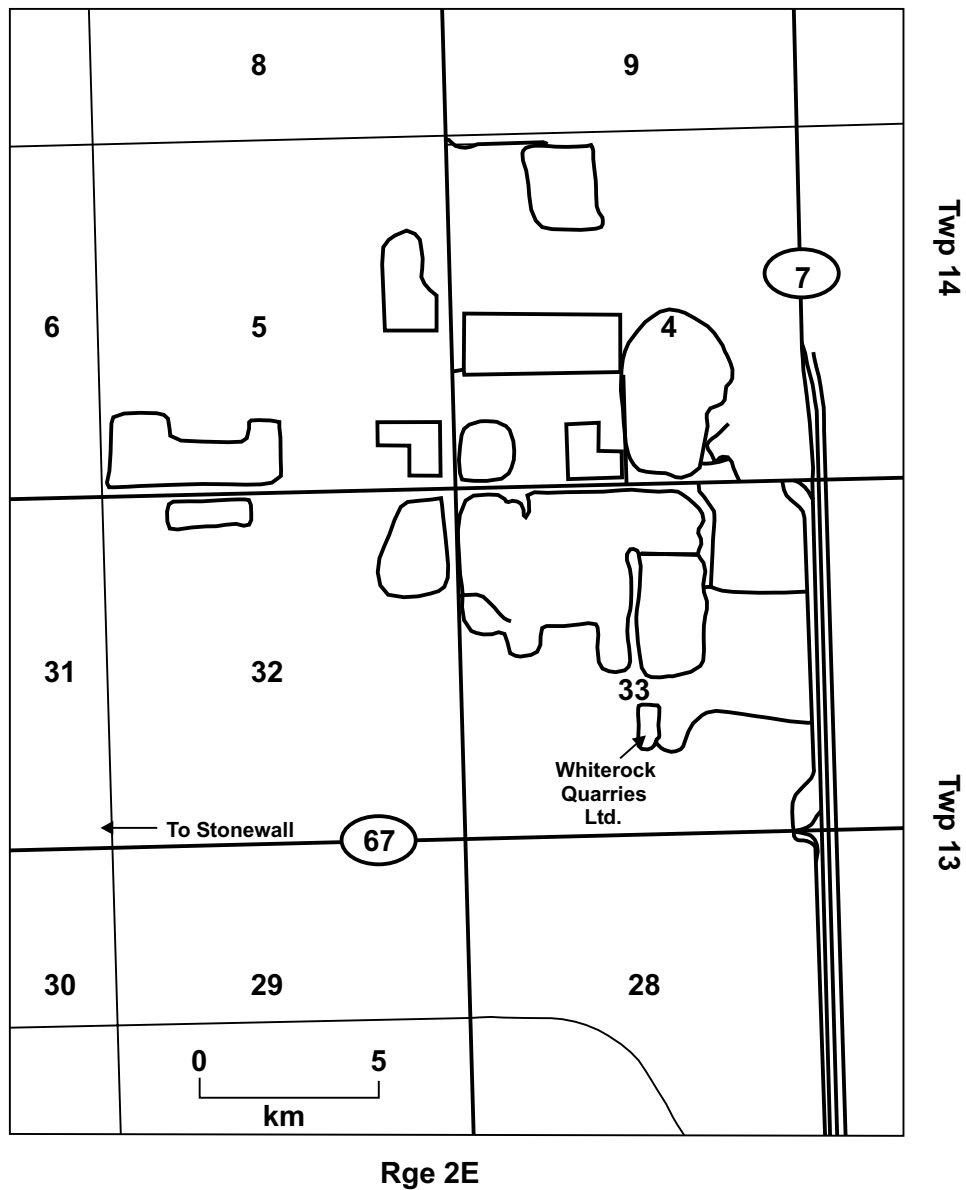
**SITE NOTES:** Sample: 99-95-IN-3-1

Access is from west access road, perpendicular to Hwy 7. Gate is locked and therefor must walk about 1 Km. Joints are well exposed on pavement on top. Major joint @ 030°, 40 m spacing, curved in places. Minor joint @ 110°, 12 m spacing. Straie @ 340°. Ceased operation in 1978.

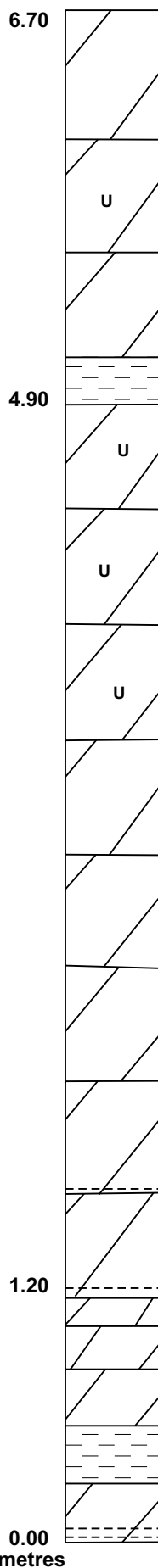




### Whiterock Quarries Ltd.



<b>Upper Ordovician</b>
<b>Stony Mountain Formation</b>
<b>Gunton Member</b>
<b>Unit 1</b>



**Dolomite; light brown tan to buff wackestone; thin to thick bedded; regular contacts; 5-7% porosity; vuggy; 10cm clay/mudstone bed at top recessive and blue grey; some intervals are very vuggy; minor worm burrows; some inter-bedded red brown mudstone beds**



Whiterock 04



Whiterock 03



Whiterock 02



Whiterock 01

Whiterock 01 to 04 – 1995-05-13, Gunton Member of the Stony Mountain Formation. View to the southwest, west and northwest.



Whiterock 04 – 1995-05-13, Gunton Member of the Stony Mountain Formation. View towards the southwest.





Whiterock 03 – 1995-05-13, Gunton Member of the Stony Mountain Formation. View towards the west-southwest.



Whiterock 02 – 1995-05-13, Gunton Member of the Stony Mountain Formation. View towards the west-northwest.





Whiterock 01 – 1995-05-13, Gunton Member of the Stony Mountain Formation. View towards the northwest.



Whiterock 05



Whiterock 06

Whiterock 05 and 06 – 1995-05-13, Gunton Member of the Stony Mountain Formation. Major fracture on stripped off pavement, view towards the northeast. JDB for scale. Displaced minor fractures off major fracture shown in middle of right photo. View towards the east.





Whiterock 07 – 1995-05-13, Gunton Member of the Stony Mountain Formation. View at the south end of quarry, looking west. JDB for scale.

PRODUCT Dolomite

N.T.S. AREA 62 I/3

REF. STN 5

---

**NAME OF PROPERTY:**

Whiterock Quarries Ltd

**OWNER OR OPERATOR AND ADDRESS**Nelson River Construction  
101 Dawson N  
Winnipeg, MB

Lat. 50°08'40"

Long. 97°15'50"

Uncertainty: 50 m

UTM: NAD 83

624175E

5555600N

L.S. 7

Sec. 33

Tp. 13

R. 2 EPM

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**OBJECT LOCATED:** Dolomite Quarry**MINING DIVISION** Winnipeg

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**DESCRIPTION OF DEPOSIT**

The dolomite quarried is of the Gunton Member of the Ordovician Stony Mountain Formation. It is similar to that of the Standard Limestone Quarries pit to the northeast (See M.I. card 62 I/3, STN 3), and consists mainly of fine-grained light brown grey mottled dolomite.

Use: Crushed Stone

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**HISTORY OF EXPLORATION AND DEVELOPMENT**

The quarry is located in L.S. 7 of sec. 33; southwest of the Standard quarry, and 4 km east of Stonewall.

In 1968 Kleysen's Cartage Co. Ltd. took out quarrying location lease M598. It covered 8 hectares in L.S. 7 and 8. Most of the pit lay to the south of M598 on private land. The quarry lease was cancelled in 1975.

The quarry operated for only a short period of time in the late 1960's and was ordered to shut down.

1978 - Quarry Mineral Lease QL-205, covering the S 1/2 of the N1/2 of L.S. 7 and 8, sec. 33, Tp. 13, R. 2 EPM, was issued to Riverside Gravel Company Limited, dated June 20, 1978. (Ownership changed from Kleysen's Cartage Co. Ltd. to Riverside Gravel Company Ltd.)

1988-1995: Ownership changed from Riverside Gravel Company Ltd. to Nelson River Construction, and the quarry name to Whiterock Quarries Ltd from Kleysen's Quarry. The Quarry ceased operation

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Associated minerals or products of value



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<b>NAME OF PROPERTY</b>	Whiterock Quarries Ltd. <b>N.T.S. AREA</b> 62 I/3 NW	<b>FILE NO.</b> 874 <b>REF.</b> STN 5
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#### **HISTORY OF PRODUCTION**

Production period was about 1968 to 1971.

Shipping Point: Stonewall  
Distance from Mine: 31 km  
Material Shipped: Crushed stone  
Carrier: Truck  
Destination: Winnipeg area

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#### **REFERENCES**

Bannatyne, B.B.  
1971:  
Industrial Minerals of the Sedimentary Area of Southern Manitoba;  
Geological Association of Canada, Special Paper No. 9, p.245.  
Industrial Minerals Geologist's File  
Manitoba Mineral Resources Division.  
Bannatyne, B.B.  
1988  
Dolomite Resources of Southern Manitoba, p.22  
Bamburak, James, Bezys, Ruth  
1995  
Capital Region Study Quarry Descriptions 1995

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#### **MAP REFERENCES**

Map 12, Industrial Minerals Producers (Index), Sc. 1:1,000,000, Manitoba  
Mineral Resources Division.  
Map 62 I/3, Stonewall, (Topography), Sc. 1:50,000, Surveys & Mapping  
Branch, Ottawa.  
Rockwood AN35

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#### **REMARKS**

Very little information was available at this time.  
STN 5: previously referenced as DOL 8  
UQI: 1Q/07-33-13-02E1

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<b>Comp./Rev.</b>	NLL	KH
<b>By Date</b>	07-78	05-1996

**NAME:** MARIASH QUARRY

**UQI:** 1Q/01-14-13-02E1

**EAST:** 628100

**NORTH:** 5550450

**DATE:** 1995-07-18

**OWNER:** Mariash Construction Ltd

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** Yes

**LOCATION:** Stony Mountain, 04-14-13-02E1

**SIZE:** Medium

**THICKNESS:** 6.2 m

**OVERBURDEN:** 0.5 - 1.0 m

**USE:** Crushed stone

**REFER:** Bannatyne (1988)

**M.I.C. NO:**

**MAPS:** 62I/3, Rockwood AN35

**PHOTO:** 88-4-5: section; 6 to 9: panoramic; 10: Gunn Member

**JOINTS:** 305°, 230°

**FORMATION:** Stony Mountain: Gunton/Penitentiary/Gunn members

**FRACTURES:** Blocky

**FOSSILS:** Brachiopod, burrows

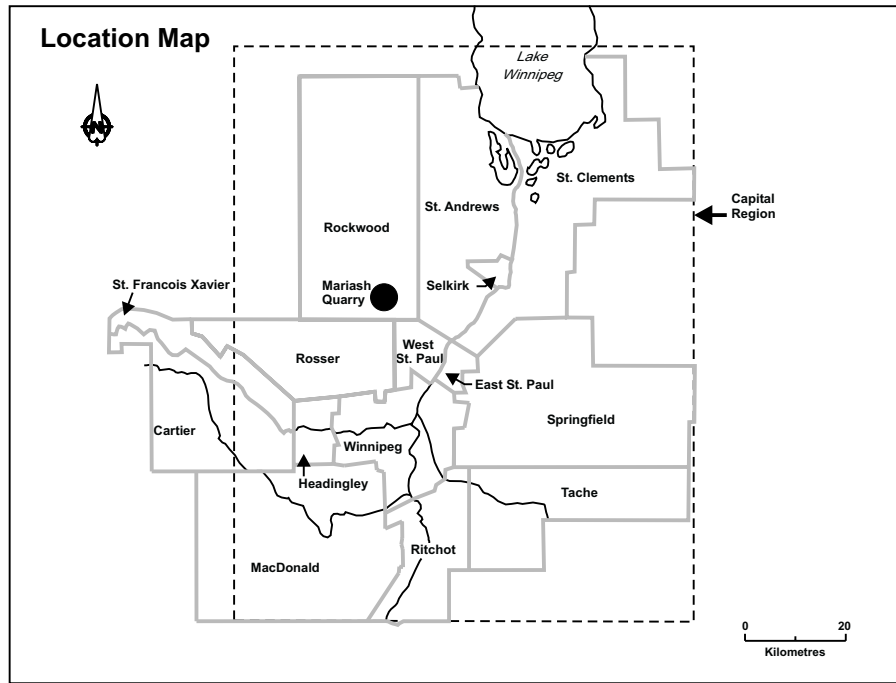
**MINERAL:**

**SECTION:** STONY MOUNTAIN FORMATION:

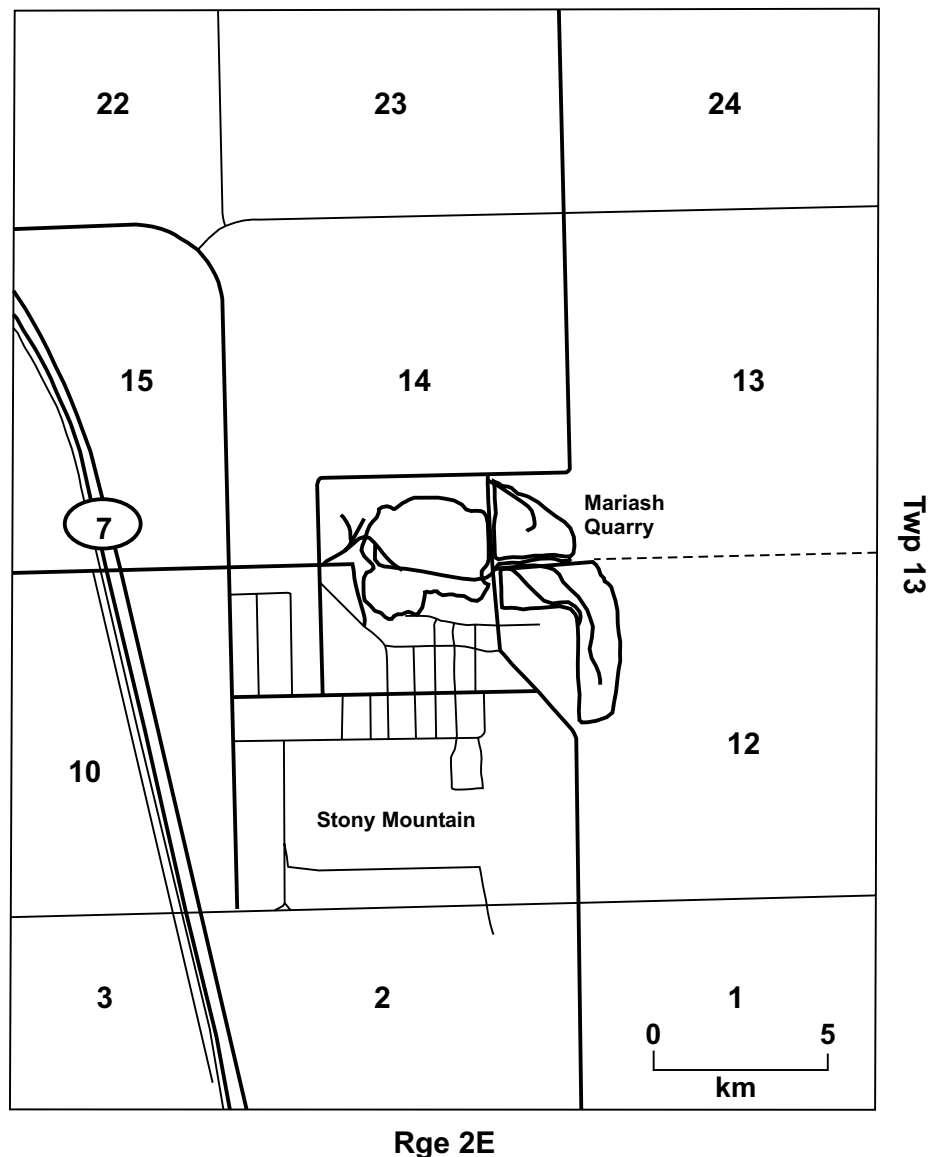
GUNTON MEMBER (3.2 m): dolomite; very resistant caprock; light brown tan; medium to thick bedded; sucrosic; fine to medium crystalline; 5-7% porosity - vuggy; interbedded with red brown to buff mudstone (reduction/oxidation); calcitic dolomite in green grey beds; burrowed in brown red beds; fossiliferous bed toward base (brachiopod)

GUNN MEMBER ? (3.0 m): purple red calcitic dolomite; fossiliferous with brachiopods and burrows; some beds all limestone; Gunn beds are not all in situ, may be from deeper portions of the pit.

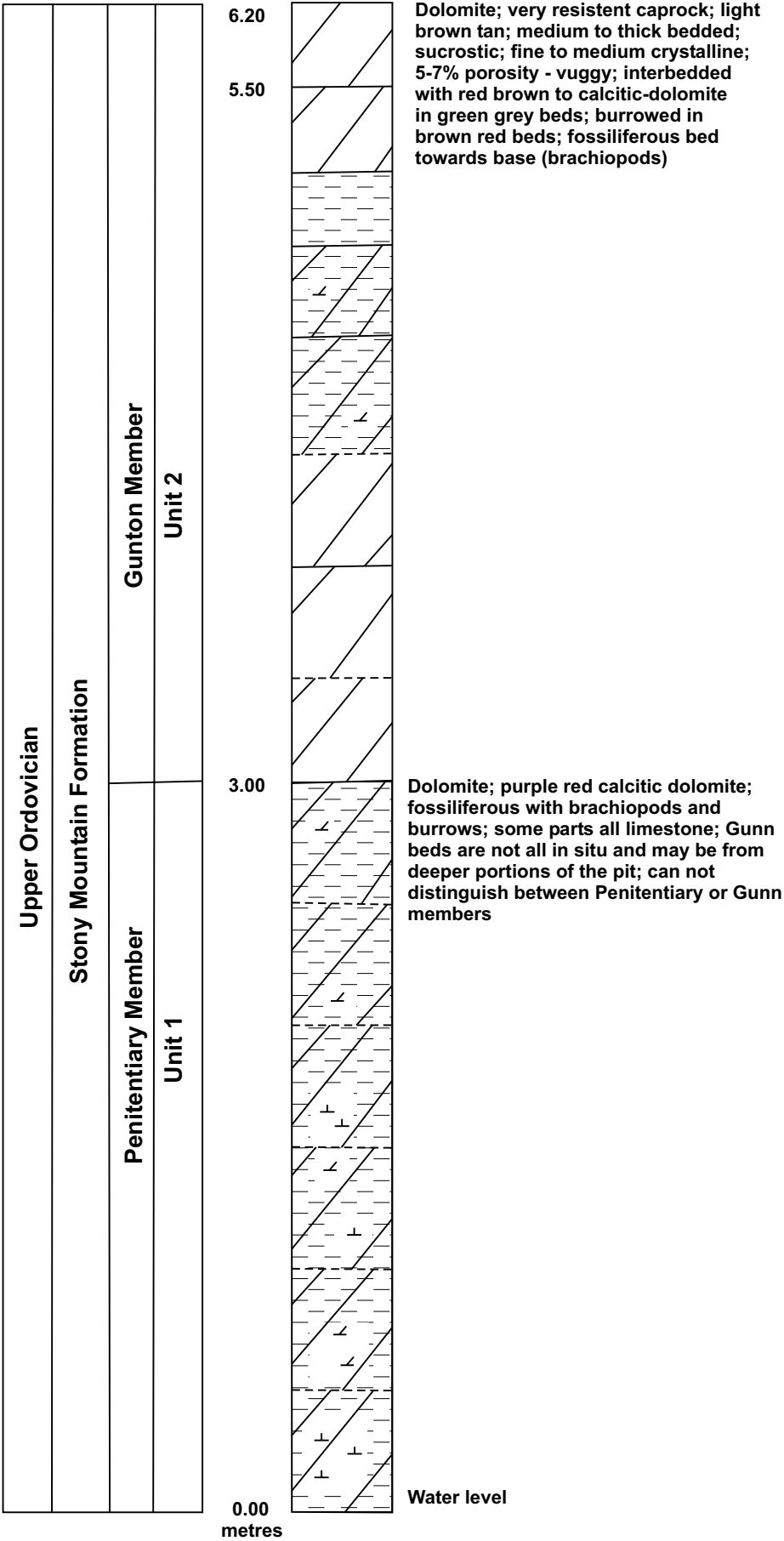
**SITE NOTES:** Sample 99-92-IN-34-1



### Mariash Quarry



Mariash Quarry







Mariash 01 -1995-07-18, Mariash Quarry. Gunton Member overlying Penitentiary Member (Stony Mountain Formation). View is looking north.



Mariash 04



Mariash 03



Mariash 02

Mariash 02 to 04 - 1995-07-18, Mariash Quarry. Gunton Member (Stony Mountain Formation) pavement with fractures. View is looking southeast, south and southwest.



Mariash 04 - 1995-07-18, Mariash Quarry. Gunton Member (Stony Mountain Formation) pavement with fractures. View is looking southeast.



Mariash 03 - 1995-07-18, Mariash Quarry. Gunton Member (Stony Mountain Formation) pavement with fractures. View is looking south.





Mariash 02 - 1995-07-18, Mariash Quarry. Gunton Member (Stony Mountain Formation) pavement with fractures. View is looking southwest.



Mariash 05 - 1995-07-18, Mariash Quarry. South wall looking southeast. Ski hill lift on left at top of section.



Mariash 06 - 1995-07-18, Mariash Quarry. West wall looking north. Thin Gunton Member at top, underlain by Penitentiary Member. Fragments of Gunn Member at base of section. Water-filled pond has Gunn Member bottom (Stony Mountain Formation).



PRODUCT Crushed Stone

N.T.S. AREA 63 I/3 NW

REF. DOL 5

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**NAME OF PROPERTY:**

Mariash Quarry

**OWNER OR OPERATOR AND ADDRESS**

Mariash Construction Ltd.

P.O. Box 425

Stony Mountain, MB R0C 3A0

Lat.

Long.

Uncertainty: 50 m

UTM: NAD 83

628100E

5550450N

L.S. 1

Sec. 14

Tp. 14

R. 2 EPM

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**OBJECT LOCATED:** Quarry**MINING DIVISION** Winnipeg

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**DESCRIPTION OF DEPOSIT**

It is of a Stony Mountain Formation: Gunton, Penitentiary and Gunn Members. The Gunton Member is very resistant caprock that is light brown to tan. The beds are of medium to thick and have fine to medium crystalline. The porosity is 5-7 % and it is vuggy. The formation is interbedded with red brown to buff mudstone (Oxidation-Reduction). There exists a good fossiliferous bed towards the base (brachiopods)

The Gunn Member is a purple red shade. Calcite dolomite is present and some parts are all limestone. The Gunn member is not all in situ and may be from deeper portions of the pit

Use: Crushed Stone

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**HISTORY OF EXPLORATION AND DEVELOPMENT**

1992-

1995: Production of crushed stone was continuous through out this time. Ownership remains with Mariash Construction Ltd.

1995: Production at this site continues.

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Associated minerals or products of value

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<b>NAME OF PROPERTY</b>	Mariash Quarry	<b>FILE NO.</b> 1038
	<b>N.T.S. AREA</b> 62 I/3 NW	<b>REF.</b> DOL 5

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#### **HISTORY OF PRODUCTION**

Production of crushed stone has occurred since at least 1992.

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#### **REFERENCES**

Bamburak, James, Bezys, Ruth  
1995  
Capital Region Study, Quarry Descriptions 1995  
Lynda Bennett  
1996  
Personal Communication

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#### **MAP REFERENCES**

Map 62 I/3, Stonewall, (Topography), Sc. 1:50,000, Surveys & Mapping  
Branch, Ottawa.

Rockwood An35

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#### **REMARKS**

UQI: 1Q/01-14-12-2E1

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**Comp./Rev.** KH

**By Date** May 24, 1996

**NAME:** CITY OF WINNIPEG QUARRY (WEST)

**UQI:** 1Q/03-14-13-02E1

**EAST:** 627425

**NORTH:** 5550475

**DATE:** 1995-07-18

**OWNER:** City of Winnipeg

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** No

**LOCATION:** Stony Mountain; 03-14-13-02E1

**SIZE:** Very large

**THICKNESS:** 10.7 m

**OVERBURDEN:** 0.5 - 1.0 m

**USE:** Crushed stone

**REFER:** Bannatyne (1975, 1988)

**M.I.C. NO:** 867

**MAPS:** 62I/3, Rockwood AN35

**PHOTO:** 88-4-11-12: Gunton (close up of calcite bed); 13: Penitentiary; 14: section and Penitentiary; 15 to 17: panoramic; 18, 19: store; 20: RC Church

**JOINTS:**

**FORMATION:** Stony Mountain: Gunton/Penitentiary/Gunton members

**FRACTURES:** Blocky to slabby

**FOSSILS:** Brachiopods, corals and burrows

**MINERAL:**

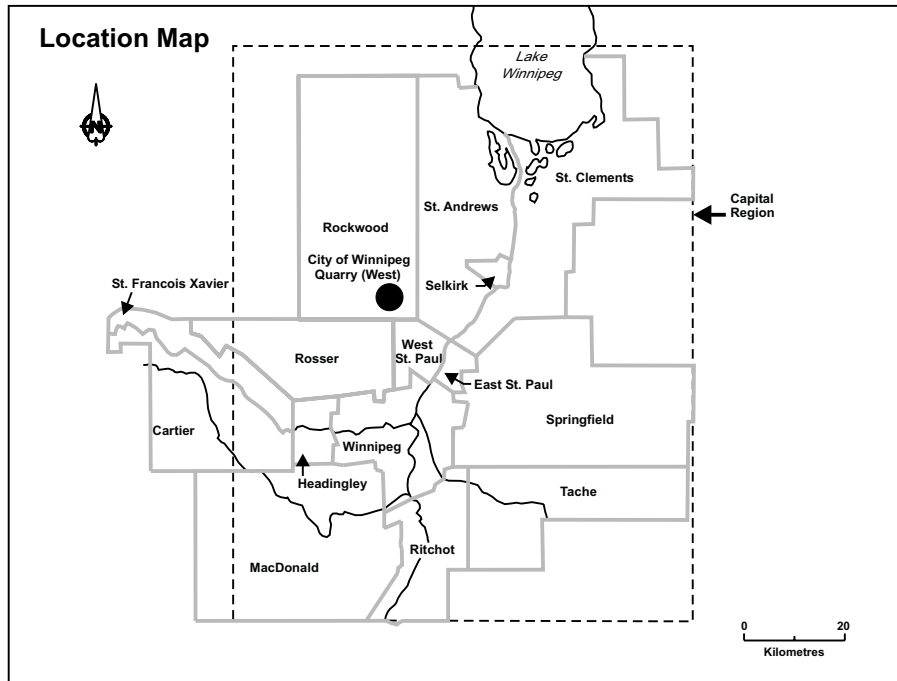
**SECTION:** STONY MOUNTAIN FORMATION:

GUNTON MEMBER (3.0 - 4.0 m): dolomitic wackestone; light brown buff; medium to massive beds; 5-8% porosity - vuggy; very weathered; small remnant of massive bedded caprock present to the north (stone similar to what was used to construct the Penitentiary).

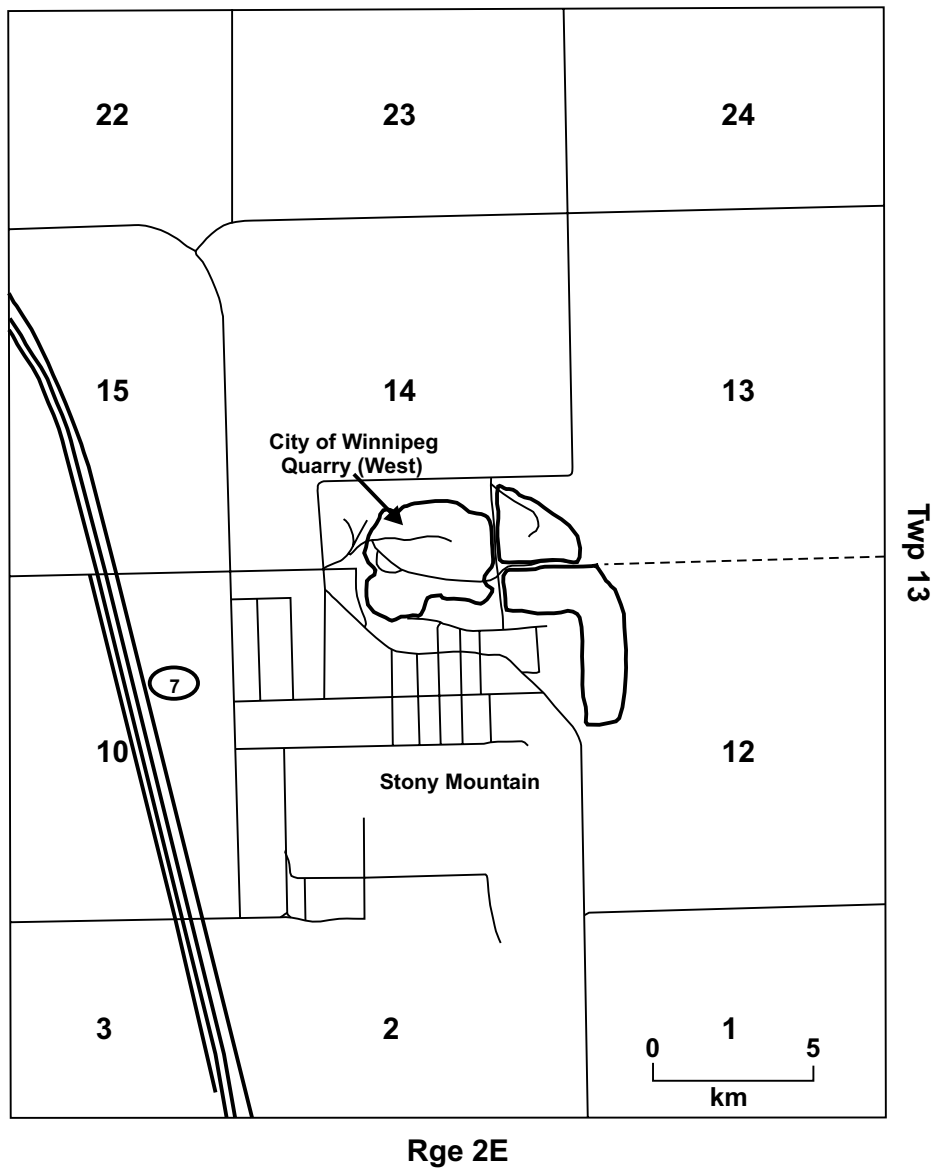
PENITENTIARY MEMBER (4.7 m): interbedded buff and red brown (and green grey) mudstone to packstone; calcareous dolomite; oxidation and reduction effects; molds of brachiopods in buff beds; mottled; thin to thick bedded; some channel - cut beds.

GUNN MEMBER (2.0 m): fossiliferous limestone; purple brown; mudstone; abundant burrowing (CHONDRITES); brachiopods; laminated to very thin bedded; some thinner beds of very resistant calcite beds (dark grey) at top and in the middle; 4-6% porosity - vuggy.

**SITE NOTES:** Sample 99-92-IN-11-1; Shut down in 1991 (no blasting, just extraction); Stony Mountain is a rounded hill, 15-24 m higher than the surrounding plain. An outlier of the Gunton and Penitentiary members of the Stony Mtn Fm. Approximately 15 m of section is exposed, consisting of 6 m (only 3.5 m in the quarries). Started in 1900 by John Gunn and Sons for crushed stone, rubble and lime. City of Wpg moved their mill from Little Stony Mountain to the present site. The Tower Quarry, a small shallow quarry, was operated in connection with the Stony Mountain Penitentiary to obtain stone for building purposes. Located on the penitentiary grounds.

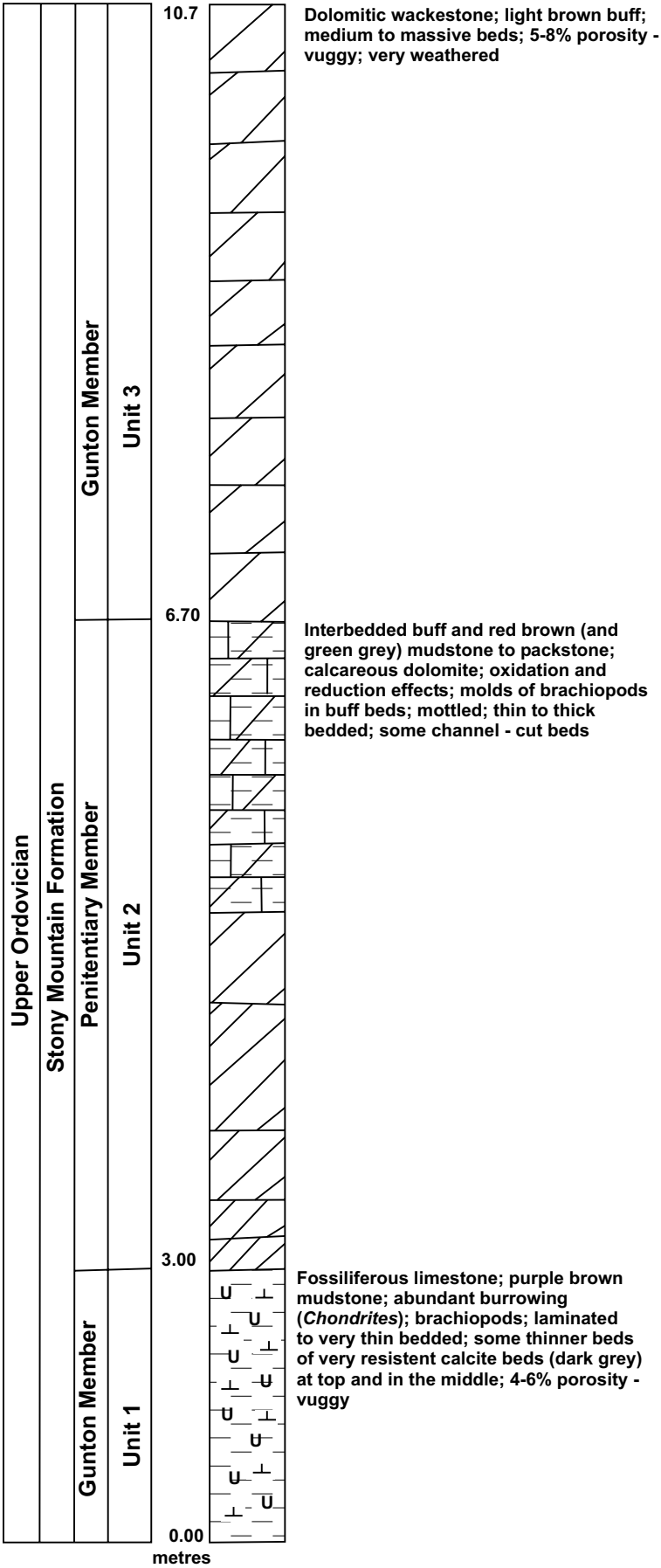


### City of Winnipeg Quarry (West)





City of Winnipeg (West)





Winnipeg N 01 - 1995-07-18, Stony Mountain West Quarry. Close-up of Gunn Member (Stony Mountain Formation), upper surface. View looking north.



Winnipeg W 01 - 1995-07-18, Stony Mountain West Quarry. Gunn pit with Gunn Member in foreground and Penitentiary Member (Stony Mountain Formation) in background. View looking north.





Winnipeg W 02 - 1995-07-18, Stony Mountain West Quarry. Penitentiary Member overlain by Gunton Member (Stony Mountain Formation). View looking north.



Winnipeg W 03 - 1995-07-18, Stony Mountain West Quarry. Gunn pit with Gunn Member in foreground and Penitentiary Member, overlain by Gunton Member in background (Stony Mountain Formation). View looking north.





Winnipeg W04



Winnipeg W05



Winnipeg W06

Winnipeg W 04 to 06 - 1995-07-18, Stony Mountain West Quarry. Northwest corner of quarry with remnants of Gunton Member (Stony Mountain Formation) caprock. View looking north, northeast and east. Prairie lowlands at far left.



Winnipeg W 04 - 1995-07-18, Stony Mountain West Quarry. Northwest corner of quarry with remnants of Gunton Member (Stony Mountain Formation) caprock. View looking north. Prairie lowlands at far left.



Winnipeg W 05 - 1995-07-18, Stony Mountain West Quarry. Northwest corner of quarry with remnants of Gunton Member (Stony Mountain Formation) caprock. View looking northeast.



Winnipeg W 06 - 1995-07-18, Stony Mountain West Quarry. Northwest corner of quarry with remnants of Gunton Member (Stony Mountain Formation) caprock. View looking east.

**NAME:** CITY OF WINNIPEG QUARRY (EAST)

**UQI:** 1Q/13-12-13-02E1

**EAST:** 628475

**NORTH:** 5550250

**DATE:** 1995-07-20

**OWNER:** City of Winnipeg

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** No

**LOCATION:** Stony Mountain; 13-12-13-02E1

**SIZE:** Very large

**THICKNESS:** 10.0 m

**OVERBURDEN:** 0.5 - 1.0 m

**USE:** Crushed stone

**REFER:** Bannatyne (1975, 1988)

**M.I.C. NO:** 867

**MAPS:** 62I/3, Rockwood AN35

**PHOTO:** 88-5-7: section; 8 to 10: panoramic; 11: Penitentiary Member; 12, 13: of jail

**JOINTS:** 312° - vertical

**FORMATION:** Stony Mountain: Gunton/Penitentiary members

**FRACTURES:** Blocky and slabby

**FOSSILS:** Brachiopods, burrows, rugose corals

**MINERAL:** Calcite in vugs

**SECTION:** STONY MOUNTAIN FORMATION:

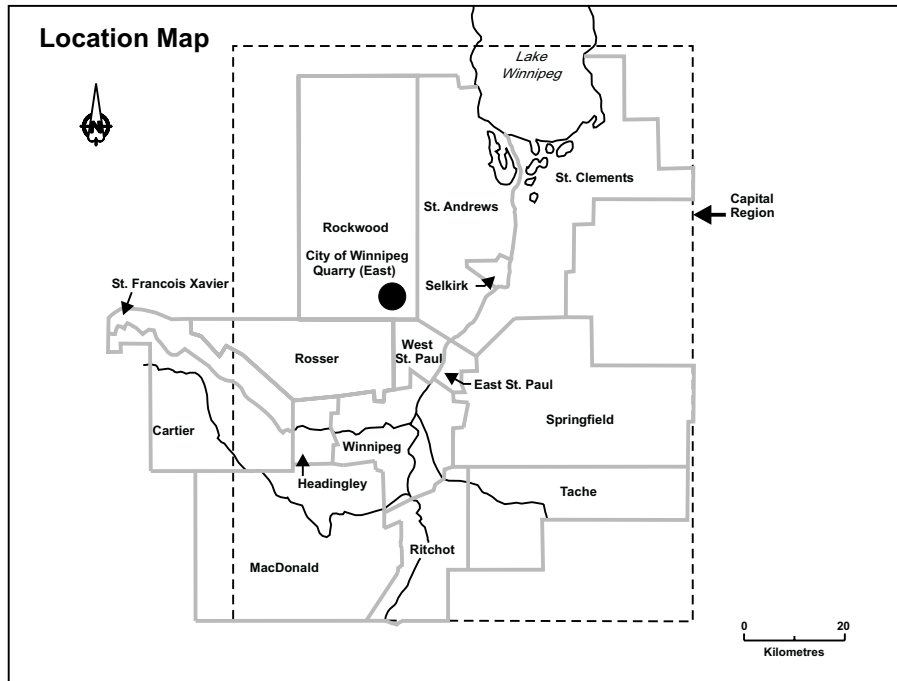
GUNTON MEMBER (3.5 m): dolomite; tan wackestone; minor red beds; not as dark as second bench; thin to medium bedded; minor salt casts; minor mottling. (Gunton appears more argillaceous than in Stonewall area)

PENITENTIARY MEMBER (3.7 m): dolomite; interbedded mottled mudstone and wackestone; beds of red brown oxidized and buff unoxidized beds; thin to medium bedded (some blue grey mudstone); fine crystalline; 3-6% porosity - vuggy; irregular bedding contacts; mottled; minor brachiopods; burrowed

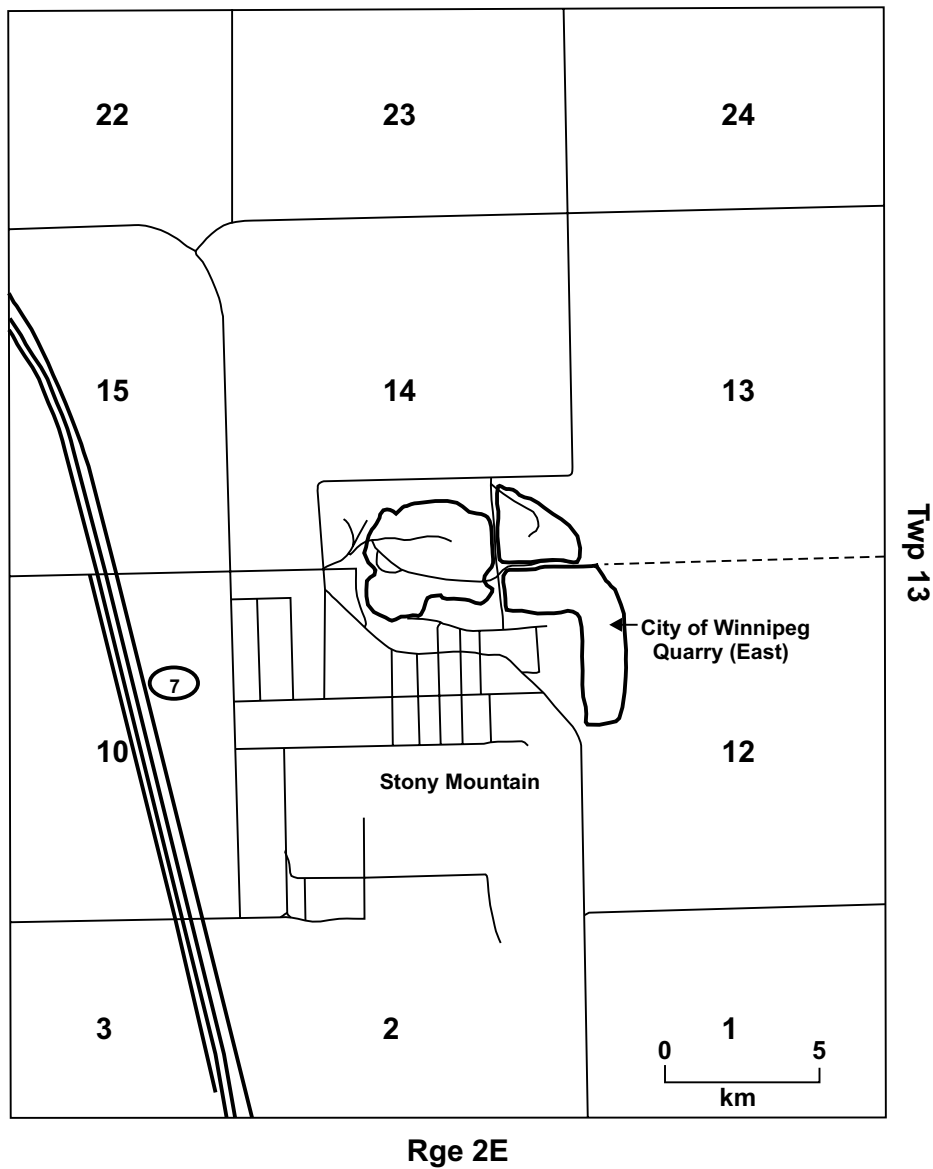
GUNN MEMBER (2.8 m): red brown purple mudstone to packstone; calcareous; laminated to very thin bedded; very fossiliferous (brachiopods); burrowed; interbedded hardground surfaces of very indurated calcite beds; fine grained; 3-5% porosity - pinpoint and vuggy.

**SITE NOTES:**



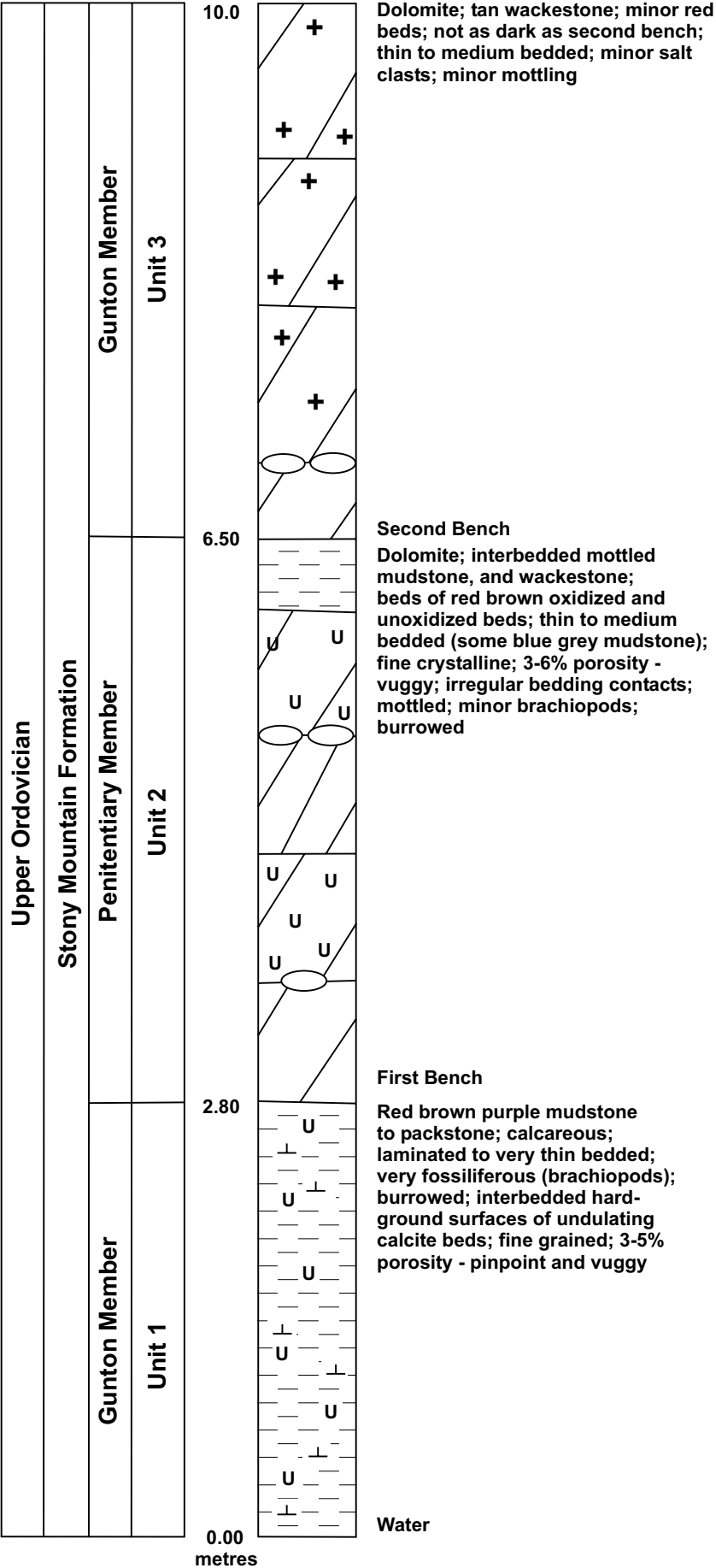


### City of Winnipeg Quarry (East)





City of Winnipeg (East)





Winnipeg E 01 - 1995-07-20, Former City of Winnipeg Stony Mountain East Quarry showing Gunn Member in red at base, Penitentiary Member in orange to greenish-buff in middle, and Gunton Member in light beige at top of section, below hydro poles. All of the Stony Mountain Formation. View is towards the north. Ski hill lift on horizon at east side.



Winnipeg E03



Winnipeg E02

Winnipeg E 02 and 03 - 1995-07-20, Former City of Winnipeg Stony Mountain East Quarry showing Penitentiary Member in orange to greenish-buff at base, and Gunton Member in light beige at top of section. All of the Stony Mountain Formation. View is towards the east and southeast.



Winnipeg E 03 - 1995-07-20, Former City of Winnipeg Stony Mountain East Quarry showing Penitentiary Member in orange to greenish-buff at base, and Gunton Member in light beige at top of section. All of the Stony Mountain Formation. View is to towards the east.



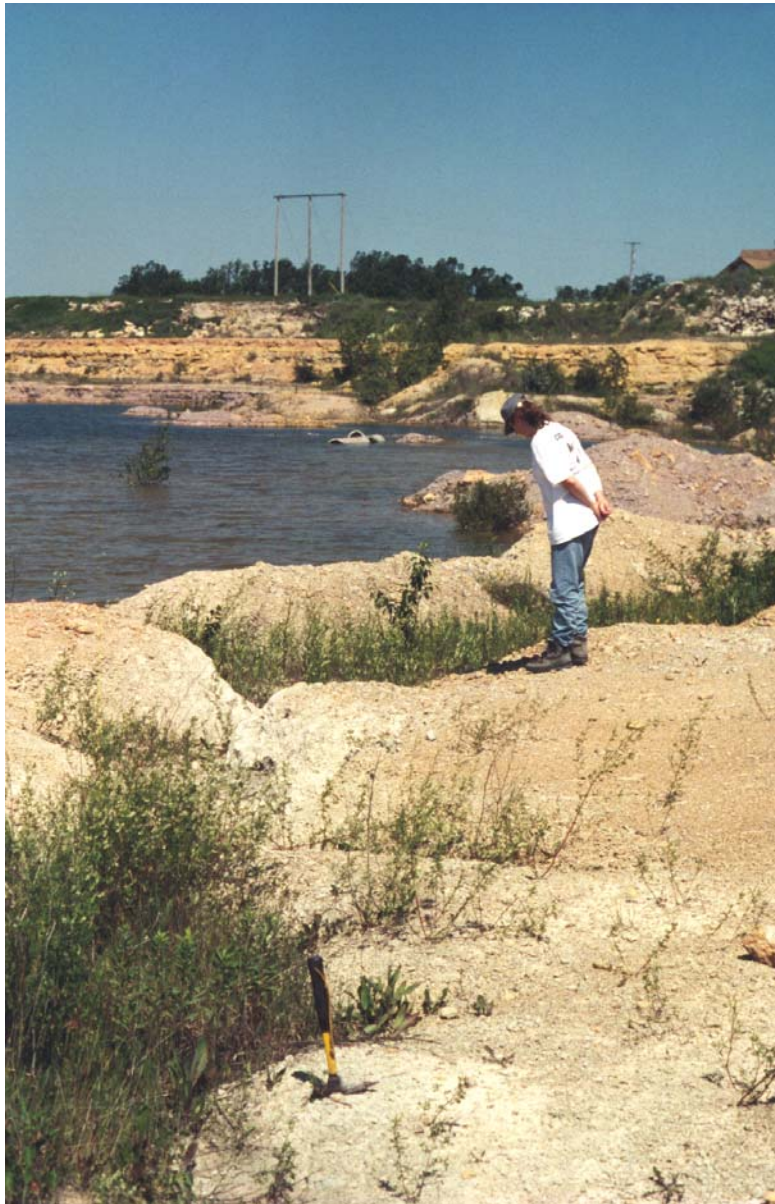
Winnipeg E 02 - 1995-07-20, Former City of Winnipeg Stony Mountain East Quarry showing Penitentiary Member in orange to greenish-buff at base, and Gunton Member in light beige at top of section. All of the Stony Mountain Formation. View is towards the southeast.





Winnipeg E 05 - 1995-07-20, Former City of Winnipeg Stony Mountain East Quarry.  
Penitentiary Member (Stony Mountain Formation), close-up. View is towards the north.





Winnipeg E 06 - 1995-07-20, Former City of Winnipeg Stony Mountain East Quarry.  
View is towards the northwest.

PRODUCT Dolomite

N.T.S. AREA 62 I/3 SE

REF.DOL 1

**NAME OF PROPERTY:**

Stony Mountain  
City of Winnipeg Quarries  
(East and West)

**OWNER OR OPERATOR AND ADDRESS**

City of Wpg Equipment and Materials  
Service Branch  
102-1155 Pacific Ave.  
Winnipeg, MB R3E 3P1

Lat. 50°05'45"

Long. 97°13'00"

Uncertainty: 50 m

UTM: NAD 83

627425E

5550475N

West Quarry

UTM: NAD 83

628475E

5550250N

East Quarry

Sec. 11,12,14 Tp. 13

R. 2 EPM

**OBJECT LOCATED:** West Quarry**MINING DIVISION** Winnipeg**DESCRIPTION OF DEPOSIT**

Stony Mountain is a rounded hill 15 to 24 m higher than the surrounding plain. It comprises an outlier of the Gunton and Penitentiary Members of the Ordovician Stony Mountain Formation. Approximately 15 m of section is exposed, consisting of 6m (only 3.5 m in the quarries) of pale yellow-buff, faintly mottled, finely crystalline dolomite of the Gunton Member. It is underlain by about 6m of dusky yellow to reddish and greenish-grey argillaceous dolomite of the Penitentiary Member; the latter shows abundant fossil casts and molds. Underlying the Penitentiary Member is about 20m (3m exposed) of greenish to purple-grey argillaceous limestone interbedded with calcareous shale of the Gunn Member. The overburden averages 0.4 m in thickness in the quarry area.

Chemical Properties:  $\text{CaCO}_3$  from 48.6 - 63.79% and  $\text{MgCO}_3$  from 14.85 - 44.19%. For Chemical analyses see Wells (1905), Parks (1916), and Goudge (1944)

Physical Properties: For physical properties see Parks (1916).

Uses: Crushed stone for street paving and as asphalt filler, dimension stone, crushed stone for concrete aggregate (from the Gunton); crushed stone and decorative stone slabs (from the Penitentiary and Gunn).

**HISTORY OF EXPLORATION AND DEVELOPMENT**

The Crushing plant for the Stony Mountain quarry is located in L.S. 3, Sec. 15, Tp. 13, R. 2E, about 24 km north of Winnipeg.

1900: The Gunn quarry (located on the northwest face of the hill is L.S. 14, Sec. 11, Tp. 13, R. 2 EPM) was being operated by John Gunn & Sons of Winnipeg.

---

NAME OF PROPERTY      Stony Mountain  
                         N.T.S. AREA 62 I/3 SE

FILE NO. 867  
REF. DOL 1

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**HISTORY OF EXPLORATION AND DEVELOPMENT (continued)**

- 1905: The quarry was producing rubble and crushed stone. According to Wells (1905) the quarry was 30 m<sup>2</sup>; the working face was 6m thick overlain by 15 cm of overburden, but the quarry was reported to be 12m deep (Dowling, 1900 and Wells, 1905). The quarry had tow steam drills and a steam derrick, a crushing outfit and a draw kiln. The top of the kiln was level with the quarry floor so crushed stone was easily carted to the shaft of the kiln. The lime (grey and slow slaking) was drawn out of the bottom and shoveled directly into boxcars on the spur to the Canadian Pacific Railway. The City of Winnipeg purchased a quarry site in L.S. 2 and 3, Sec. 14 across a road allowance north of the Gunn quarry. They moved the mill (and much of the town) dismantled from Little Stony Mountain and re-assembled it on the quarry site (See I.M.I. card 62 H/14 STN 1). The Manitoba Construction Company of Winnipeg was also opening a new quarry located 0.8 km east of the Gunn quarry.
- 1913: The City of Winnipeg quarry was 450 m long by 50m wide; 15 cm of overburden were stripped near the middle but it deepened to 1.2 m at the northeast end. Holes, 6m deep, were sunk 1.2 m back from the face and 1.2-1.5 m apart. Dynamite was used to blow the whole face down onto the floor. The company had three crushers, 1 electric drill and three steam drills. 50 400 m<sup>3</sup> of crushed stone were produced. Manitoba Quarries Limited now held the old Gunn quarry. It was only about 300 m long and the working face was 3.5 m high. The quarry was not being worked in 1913, but a 113 tonne crusher was installed and a spur connected the property with the railway. Manitoba Quarries also held the Kelly Quarry (formerly Modern Quarry Co.) in L.S. 15 and 16, Sec. 11, Tp. 13. (It may have been the Manitoba Construction Company Quarry). The excavation was 90 m by 45 m and 3.5 m deep.
- 1924: The City of Winnipeg installed a central concrete mixing plant on Ross Ave. and began shipping their stone there. The overburden was trammed to the crusher on 0.9 and 0.4 m<sup>3</sup> skips, on a narrow gauge railway track. The skips were hauled by horses and dumped into the crusher from a triple. The crusher was on the side of the hill so the hopper was level with the quarry floor. A 15 m elevator carried the stone to the sizing screens.
- 1927: The city quarry was now 245 m<sup>2</sup> and 4.2 m deep. An electric shovel removed the 75 cm of overburden. Cable-hauled trams were now being used to haul the stone to the crusher. The quarry supplied the city streets and Canadian Pacific Railway with crushed stone and the C.P.R. with rubble. Ten 25 m<sup>3</sup> carloads of crushed stone were being produced daily. The old Gunn quarry (now about 460 m by 300 m by 3 m) was not in operation.
- 1928: The Municipality of Rockwood was operating the old Gunn quarry for crushed stone.

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NAME OF PROPERTY      Stony Mountain  
N.T.S. AREA 62 I/3 SE

FILE NO. 867  
REF. DOL 1

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**HISTORY OF EXPLORATION AND DEVELOPMENT (continued)**

- 1944: About 1944 the City of Winnipeg acquired to old Gunn quarry from the Municipality of Rockwood. It was now separated from the city quarry by a road allowance. They proposed to quarry the stone in the road allowance and extend operations into the Gunn quarry. The City replaced the narrow gauge tracks with modern quarry trucks. The working face was 4.2m high. A spur track from the Arborg branch of the C.P.R. served the quarry. The chief product was crushed stone, but asphalt filler was also produced. Crushed material less than 5mm was widely shipped for use as tennis court dressing. The Kelly quarry was no longer in operation.
- 1946: 23 500 tonnes of dolomite were quarried and screened by the City for use as road metal.
- 1947: A grate hammer mill was installed to replace the secondary gyratory crushers: 59 440 tonnes of crushed stone were produced.
- 1951: Work on a new crushing and screening plant was started. Production was 106 300 tonnes.
- 1953: Production was 160 600 tonnes.
- 1957: The City of Winnipeg acquired the Kelly quarry and 4.2 hectares of land in the northwest corner of Sec. 12 (just east of Kelly's quarry).
- 1964: The old City quarry was now 300 m by 540 m with a maximum depth of 7.8 m. There was a pit in the quarry floor 240 m by 69 m, 1.8 into the Penitentiary Member. The old Gunn quarry was 600 m by 150 m with a maximum depth of about 10m. The old Kelly's quarry was 300 m by 200 m by 2.7 m. Quarrying location lease M527 was taken out by the City of Winnipeg to cover the road allowance to the east of the Old Kelly quarry.
- 1970: The pit in the northwest 1/4 of Sec. 12, (east of the old Kelly Quarry) was now 600 m by 120 m.
- 1975: Lease M527 was cancelled.
- 1978: Quarrying continued to the southeast of the old Kelly quarry.
- 1978: Bison Rock products Ltd. re-opened the old quarry in L.S. 1, Sec.14, and produced crushed stone.
- 1991-
- 1993: The quarry known as City of Winnipeg West (03-14-13-2E1) was shut down, blasting was ceased but extraction was still occurring. Operations did not occur in the area known as City of Winnipeg Quarry East (Sec. 12, Tp. 13, Rge. 2EPM, L.S. 13) since 1992 or earlier.
- 1993: City of Winnipeg West and East both were not in production
- 1994: During 1994 City of Winnipeg East remained closed while City of Winnipeg West was opened and extraction was occurring.
- 1995: Both the East and West quarries were inactive.
- 

Associated minerals or products of value



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**NAME OF PROPERTY**      Stony Mountain  
                                 **N.T.S. AREA** 62 I/3 SE

**FILE NO.** 867  
**REF.** DOL 1

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#### **HISTORY OF PRODUCTION**

- 1900: The Gunn quarry was being operated by John Gunn & Sons of Winnipeg.  
1905: The quarry was producing crushed stone, rubble and lime. The City of Winnipeg purchased a quarry site they reassembled the mill and much of the town dismantled from Little Stony Mountain. The Manitoba Construction Company opened a new quarry 0.8 km east of the Gunn quarry.  
1913: The City of Winnipeg quarry produced 50 400 m<sup>3</sup> of crushed stone. Manitoba Quarries Limited held the old Gunn quarry but it was not being worked. They also held the Kelly quarry (formerly Modern Quarry Company). Production from the City quarry to 1913 averaged 52 700 cubic metres except for 1906 when production was 89 600 cubic metres.  
1927: Ten 25 m<sup>3</sup> carloads of crushed stone were being produced daily by the City quarry. The old Gunn quarry was not in operation.  
1928: The municipality of Rockwood was operating the old Gunn quarry for crushed stone.  
1944: About 1944, the City of Winnipeg acquired the old Gunn quarry from the Municipality of Rockwood. The chief product was crushed stone for concrete aggregate and mastic pavements but asphalt filler was also produced and material crushed to under 5 mm was widely shipped for use as tennis court dressing.  
1946: 23 500 tonnes of dolomite were quarried and screened by the City for use as road metal.  
1947: 49 400 tonnes of crushed stone were produced in 1947, 76 00 tonnes in 1948, 64 000 tonnes in 1949, 127 000 tonnes in 1950, 106 000 in 1951, 100 000 tonnes in 1952 and 160 600 tonnes in 1953.  
1978: The City is now quarrying to the southeast of the old Kelly quarry.  
1978: Bison Rock Products Ltd. re-opened the quarry in L.S. 1 Sec. 14.  
1992-  
1995: The Stony Mountain Quarry is non-operational.
- 

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<b>NAME OF PROPERTY</b>	Stony Mountain	<b>FILE NO.</b> 867
	<b>N.T.S. AREA</b> 62 I/3 SE	<b>REF.</b> DOL 1

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Capital Region Project, Quarry Descriptions 1995  
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#### **MAP REFERENCES**

Map 12, Industrial Minerals Producers (Index), 1:1 000 000, Manitoba Mineral Resources Division

Map 51-56, Lake Winnipeg and Adjacent Areas (Geol.), 1:506 980, Accomp. Publ. 51-56 by Ballie (1951), Manitoba mines branch

Figure 4, Ordovician Stratigraphic cross-section Accomp. Publication 51-56 by Baillie (1952, Manitoba Mines Branch

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**NAME OF PROPERTY**      Stony Mountain  
                                 **N.T.S. AREA** 62 I/3 SE

**FILE NO.** 867  
**REF.** DOL 1

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**MAP REFERENCES (continued)**

Map 62 I/3b, Stony Mountain (topographic), 1: 25 000, Surveys and Mapping Branch, Ottawa.  
Plates I and II (pages 9 & 10), Location Map and Detail Map 1:253 440 and 1:47 520, Accomp. Thesis on Stony Mountain and Stonewall Formations, by D.L. Smith, 1963, University of Manitoba.  
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**REMARKS**

The Tower Quarry, a small shallow quarry was operated in connection with Stony Mountain Penitentiary to obtain stone for building purposes. It is located on the Penitentiary Grounds: L.S. 16, Sec. 2, Tp. 13, Rge. 2E. A large quarry pit is located in L.S. 1, Sec. 14, Tp. 13, Rge. 2E.

In 1916 Kelly Bros. and Mitchell owned the land, but no work had been done. No more information is available on the later removal of a large quantity of Gunton dolomite; the quarry was re-opened by Bison Rock Products Ltd. in 1978. Manitoba Quarries, Limited owned a 2 hectare property where stone was formerly quarried for lime burning, referred to by Parks (1916) as at southwest corner of Sec. 13, Tp. 13 Rge. 2E (Stony Mountain).

This site is known to have fossils of brachiopods and corals in the quarry.

UQI of City of Winnipeg Quarry East: 1Q/ 13-12-13-02E1  
UQI of City of Winnipeg Quarry West: 1Q/ 03-14-13-02E1

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<b>Comp./Rev.</b>	NLL	KH
<b>By Date</b>	07-1978	05-1996

**NAME:** MOWATT FARM QUARRY

**UQI:** 1Q/10-27-13-03E1

**EAST:** 635675

**NORTH:** 5554825

**DATE:** 1996-05-30

**OWNER:** Ernst Johnson (482-7316)

**INSPECTOR:** R.K. Bezys

**OPERATING:** No

**LOCATION:** Mowatt Farm, North of Winnipeg, 10-27-13-03E1

**SIZE:** Small

**THICKNESS:** 6.5 - 7.5 m

**OVERBURDEN:** 2.5 - 3.0 m

**USE:** Crushed stone

**REFER:** Bezys and McCabe (1996); Noiseux (1992); Betcher et al. (1993); Bannatyne (1988)

**M.I.C. NO:**

**MAPS:** 62I/3, Parks Creek AN36

**PHOTO:**

**JOINTS:**

**FORMATION:** Red River: Fort Garry Member

**FRACTURES:** Blocky and platy

**FOSSILS:** Crinoids, rugose corals, Paleofavosites, Chondrites

**MINERAL:**

**SECTION:** RED RIVER FORMATION:

FORT GARRY MEMBER:

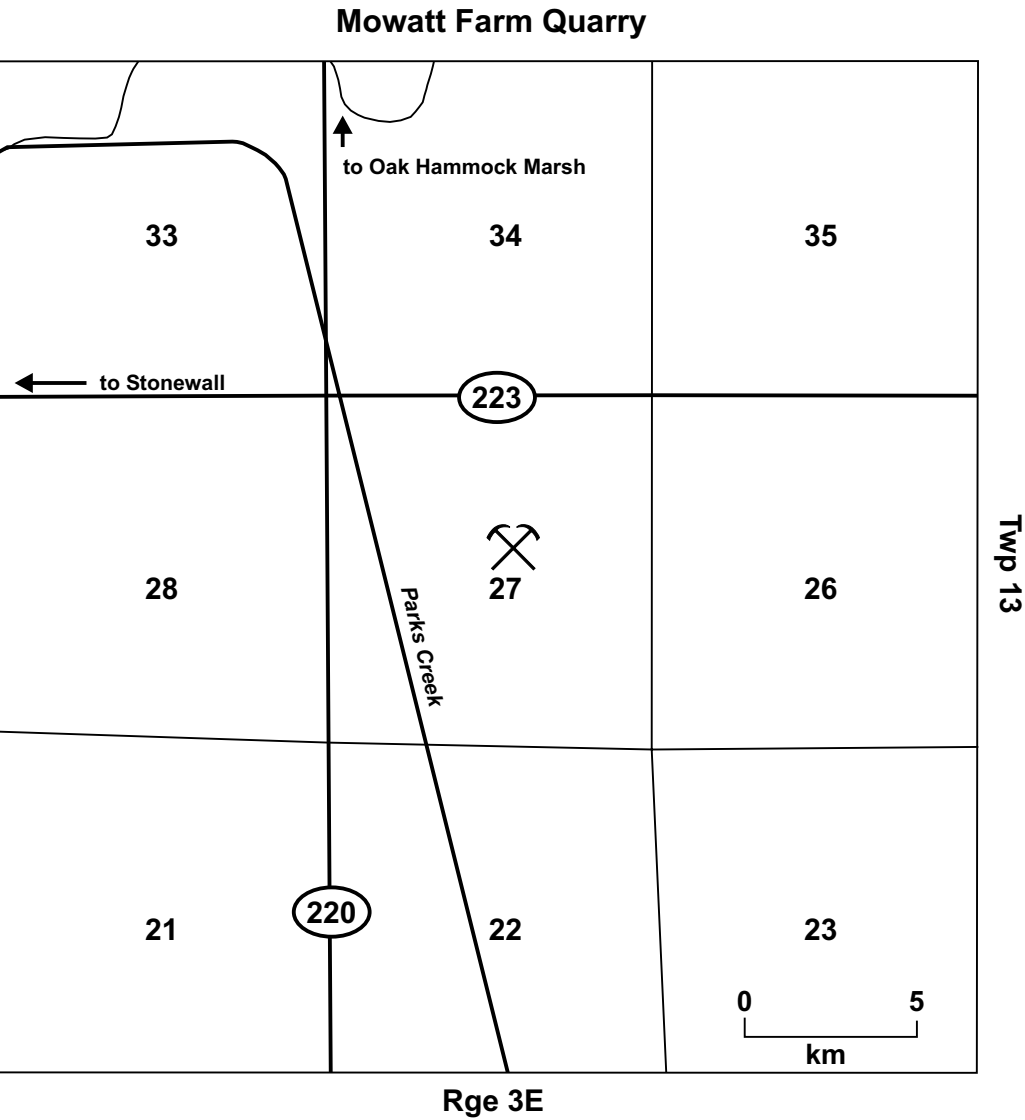
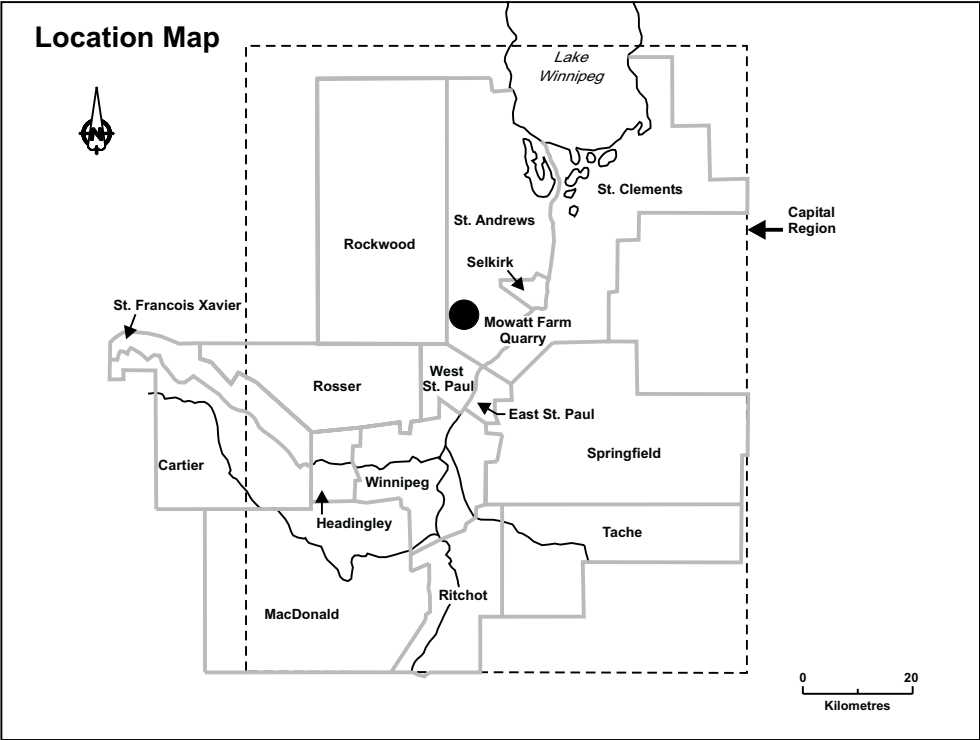
UNIT 1 (0.40 m): dolomite; floatstone to mudstone: buff tan; 10% porosity - vuggy; crinoidal and some coral debris; massive.

UNIT 2 (5.5 m): dolomite; mudstone; buff tan to red orange (various); bright red mudstone at 1.3 m from top; low porosity, less than 3%; algal conglomerates in places; thin to medium bedded.

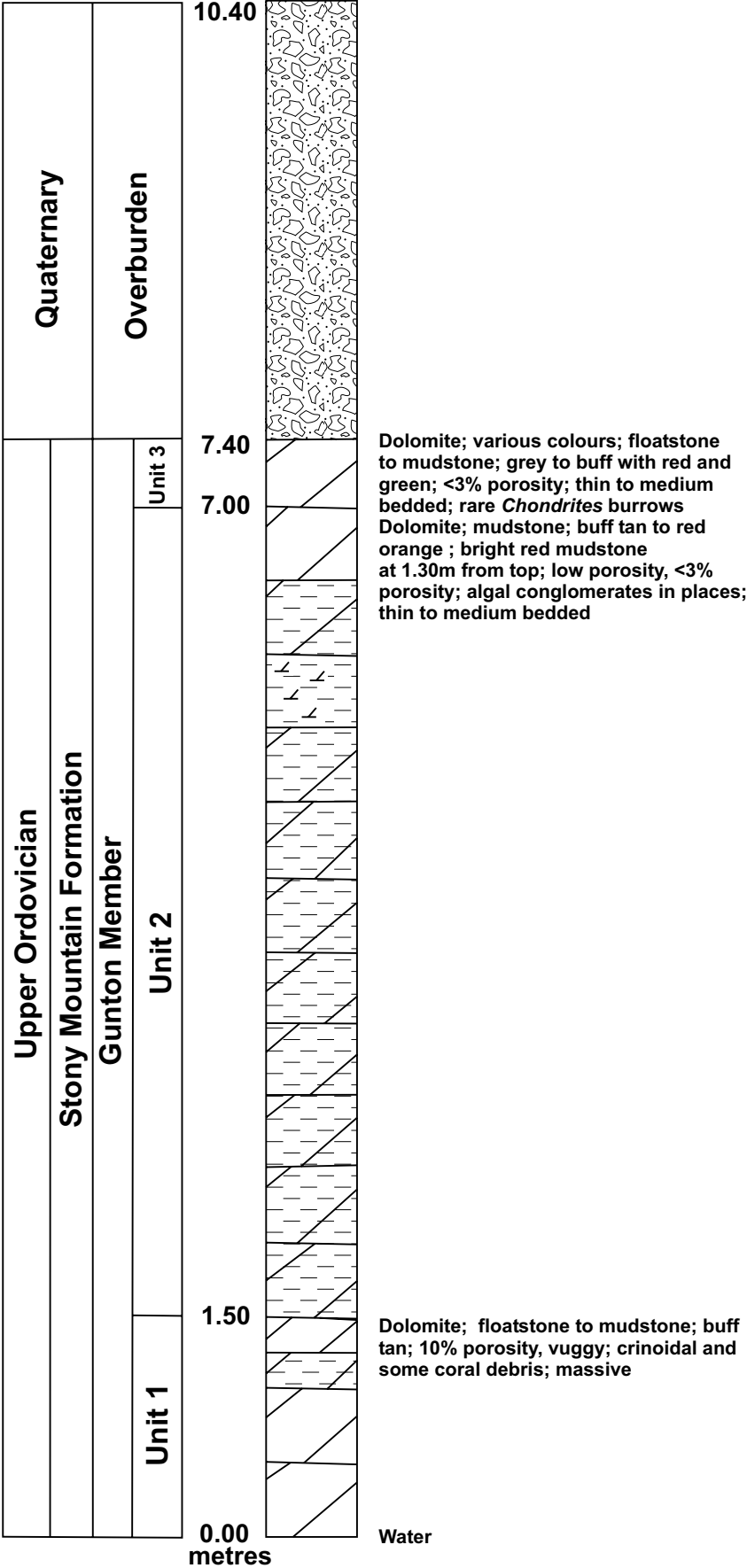
UNIT 3 (1.5 m): various; dolomite; floatstone to mudstone; grey to buff with red and green; less than 3% porosity; thin to medium bedded; rare Chondrites.

**SITE NOTES:** Overburden of 2.5-3.0 m. Quarry deepened to 8 m in south. Opened in 1961, ceased in 1978. Water-filled.





Mowatt Farm Quarry





Mowatt 01



Mowatt 02



Mowatt 03



Mowatt 04

Mowatt 01 to 04 – 1996-05-30, Fort Garry Member of the Red River Formation. View from the southeast to the northwest, from the east wall.



Mowatt 01 – 1996-05-30, Fort Garry Member of the Red River Formation. View towards the southeast, from the east wall.



Mowatt 02 – 1996-05-30, Fort Garry Member of the Red River Formation. View towards the south, from the east wall.



Mowatt 03 – 1996-05-30, Fort Garry Member of the Red River Formation. View towards the southwest, from the east wall.





Mowatt 04 – 1996-05-30, Fort Garry Member of the Red River Formation. View to the northwest, from the east wall.



Mowatt 05 – 1996-05-30, Fort Garry Member of the Red River Formation. From the west wall looking north.



Mowatt 06 – 1996-05-30, Fort Garry Member of the Red River Formation. From the west wall looking north.





Mowatt 07



Mowatt 08



Mowatt 09



Mowatt 10



Mowatt 11

Mowatt 07 to 11 – 1996-05-30, Fort Garry Member of the Red River Formation. View from the north to south, from the west wall.



Mowatt 07 – 1996-05-30, Fort Garry Member of the Red River Formation. View towards the north, from the west wall.



Mowatt 08 – 1996-05-30, Fort Garry Member of the Red River Formation. View towards the northeast, from the west wall.



Mowatt 09 – 1996-05-30, Fort Garry Member of the Red River Formation. View towards the east, from the west wall.





Mowatt 10 – 1996-05-30, Fort Garry Member of the Red River Formation. View towards the southeast, from the west wall.



Mowatt 11 – 1996-05-30, Fort Garry Member of the Red River Formation. View towards the south, from the west wall.

PRODUCT Dolomite

N.T.S. AREA 62I/3 NE

REF. DOL9

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**NAME OF PROPERTY:****OWNER OR OPERATOR AND ADDRESS**

Mulder Bros. Pit No. 12 (Mowatt Farm)

Mulder Bros. Limited  
1820 DeVries Avenue  
North Kildonan, MB

Lat. 50°07'50"

Long. 97°06'55"

Uncertainty: 50 m

UTM: NAD 83

635675E

5554825N

L.S. 10

Sec. 27

Tp. 13

R. 3 EPM

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**OBJECT LOCATED:** Dolomite Quarry**MINING DIVISION** Winnipeg

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**DESCRIPTION OF DEPOSIT**

Dolomite of the Fort Garry Member of the Ordovician Red River Formation is exposed in the quarry. The section exposed in 1970 was 4m of microcrystalline to finely crystalline dolomite containing chert nodules underlain by a bed of red shale with irregular contacts. Later, further cuts were made exposing very dense, sublithographic dolomite. The red shale is a marker bed located slightly above the middle of the Fort Garry Member. Chemical Properties: none available  
Physical Properties: See Department of Highways for sieve analysis  
Use: crushed stone for road material

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**HISTORY OF EXPLORATION AND DEVELOPMENT**

The quarry is located in L.S. 10, sec. 27, about 10 km northeast of Stony Mountain, on patented land.

Mulder Bros. Sand and Gravel Ltd. opened the quarry about 1961. The dolomite was quarried to a depth of 4 m and crushed at the quarry. In 1970 the Manitoba Mines Branch drilled core hole M-1-70 on the east side of the quarry. Before 1977 the south half of the quarry was deepened to 8m. In 1977 the northeast quarter of the quarry was deepened and in 1978 the northwest quarter was also deepened to about 8m.

1978: Quarrying has ceased at this location.

1996: There has been no indication that production has been reactivated

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Associated minerals or products of value

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<b>NAME OF PROPERTY</b>	Mulder Bros. Pit, No. 12 <b>N.T.S. AREA</b> 62I/3 NE	<b>FILE NO.</b> 875 <b>REF.</b> DOL 9
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#### **HISTORY OF PRODUCTION**

Mulder Bros. Limited began quarrying dolomite for crushed stone in 1961, and has operated the quarry periodically since then.

Shipping Point: Mulder Bros. Pit 12

Distance from mine: 25 km

Material Shipped: crushed stone

Carrier: Truck

Destination: Winnipeg

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#### **REFERENCES**

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Map 12, Industrial Minerals Producers (Index), 1:1 000 000; Manitoba Mineral Resource Division.

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<b>NAME OF PROPERTY</b>	Mulder Bros. Pit, No. 12	<b>FILE NO.</b> 875
	<b>N.T.S. AREA</b> 62I/3 NE	<b>REF.</b> DOL 9

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**REMARKS**

The Department of Highways reported as of 1978 the quarry was approximately 91.4 m x 228.5 m, and between 4.5 m and 6.2 m to water level. Overburden is 0 to 0.5 m in the quarry area, but thickens to over 1 m locally.

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<b>Comp./Rev.</b>	NLL	KH
<b>By Date</b>	08-78	05-1996



**NAME:** WILLIAMS OR NO.1 QUARRY

**UQI:** 1Q/06-28-15-02E1

**EAST:** 623590

**NORTH:** 5573625

**DATE:** 1995-07-20

**OWNER:** CBR Cement Canada Ltd

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** No

**LOCATION:** Gunton (Manitoba Quarries Limited, No.1 Quarry), 06-28-15-02E1

**SIZE:** 150 m by 90 m with a depth of 8.4 m - small

**THICKNESS:** 7.9 m

**OVERBURDEN:** 0.5 - 1.0 m

**USE:** Crushed stone, building stone, and lime

**REFER:** Bannatyne (1988)

**M.I.C. NO:** 62I/6 Dol 1

**MAPS:** 62I/6

**PHOTO:**

**JOINTS:** 210°, 191°, 100°

**FORMATION:** Stony Mountain: Gunton Member

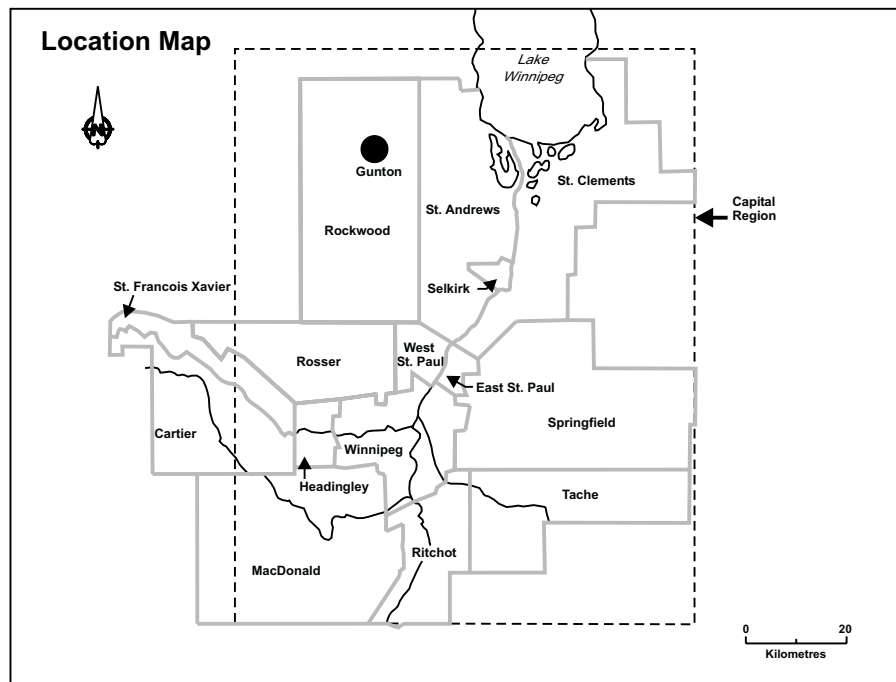
**FRACTURES:**

**FOSSILS:**

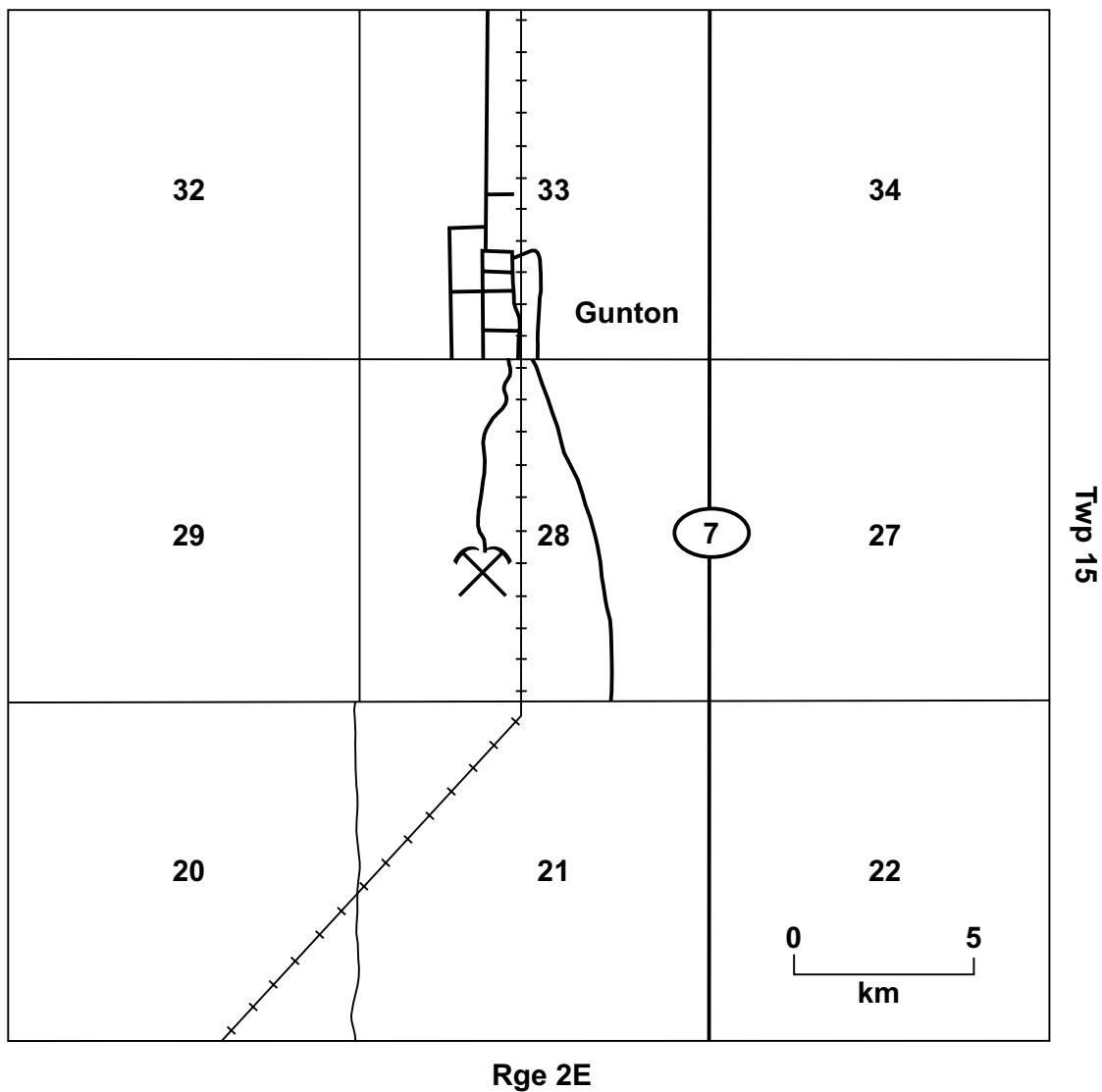
**MINERAL:**

**SECTION:** STONY MOUNTAIN FORMATION:  
GUNTON MEMBER (7.9 m): dolomite; mudstone to wackestone; thin to thick bedded.

**SITE NOTES:**



### Williams or No. 1 Quarry

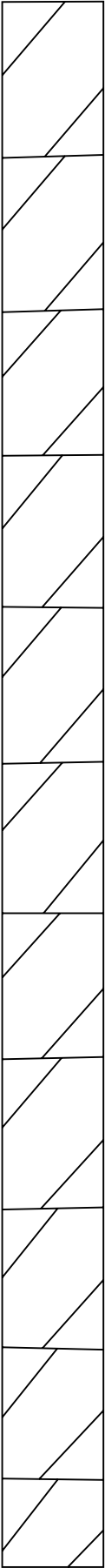


**Williams or No. 1 Quarry**

Upper Ordovician
Stony Mountain Formation
Gunton Member
Unit 1

7.90

0.00  
metres



Dolomite; mudstone to  
wackestone; thin to thick  
bedded

**NAME:** GUNN OR NO.2 QUARRY

**UQI:** 1Q/07-28-15-02E1

**EAST:** 623750

**NORTH:** 5573500

**DATE:** 1995-07-20

**OWNER:** CBR Cement Canada Ltd

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** No

**LOCATION:** Gunton (Manitoba Quarries Limited, No.2 Quarry), 07-28-15-02E1

**SIZE:** Small to medium

**THICKNESS:** 6.7 m

**OVERBURDEN:** 0.5 - 1.0 m

**USE:** Crushed stone, building stone and lime

**REFER:** Bannatyne (1988)

**M.I.C. NO:** 62I/6 Dol 1

**MAPS:** 62I/6

**PHOTO:** 88-5-21: section; 22: old building; 88-6-12 to 14: panoramic; 15: joints (cross cutting)

**JOINTS:** 030°, 54°, 120°, 125° (on top: 30°, 290°)

**FORMATION:** Stony Mountain: Gunton Member

**FRACTURES:** Blocky

**FOSSILS:**

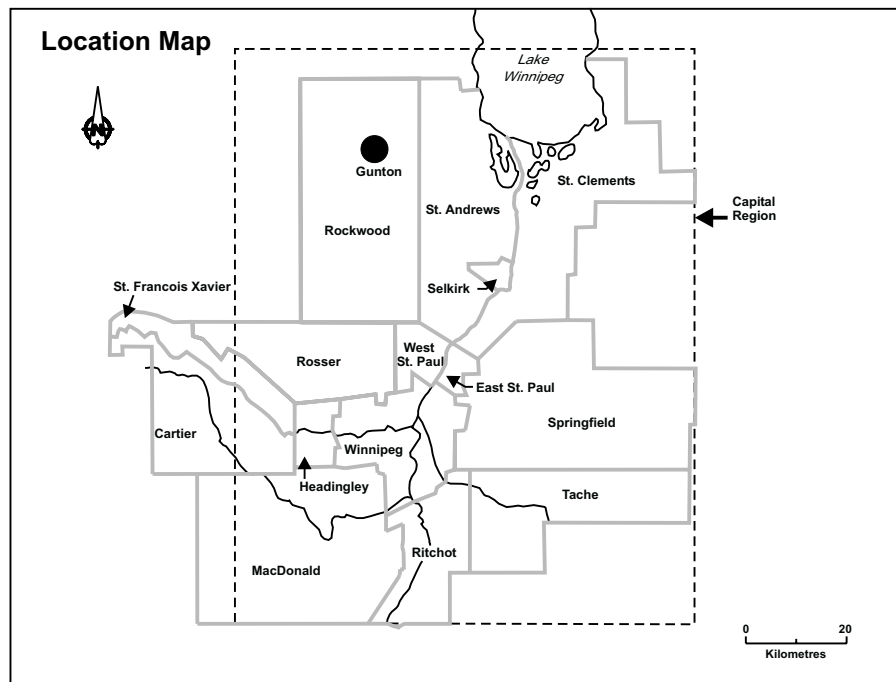
**MINERAL:**

**SECTION:** STONY MOUNTAIN FORMATION:

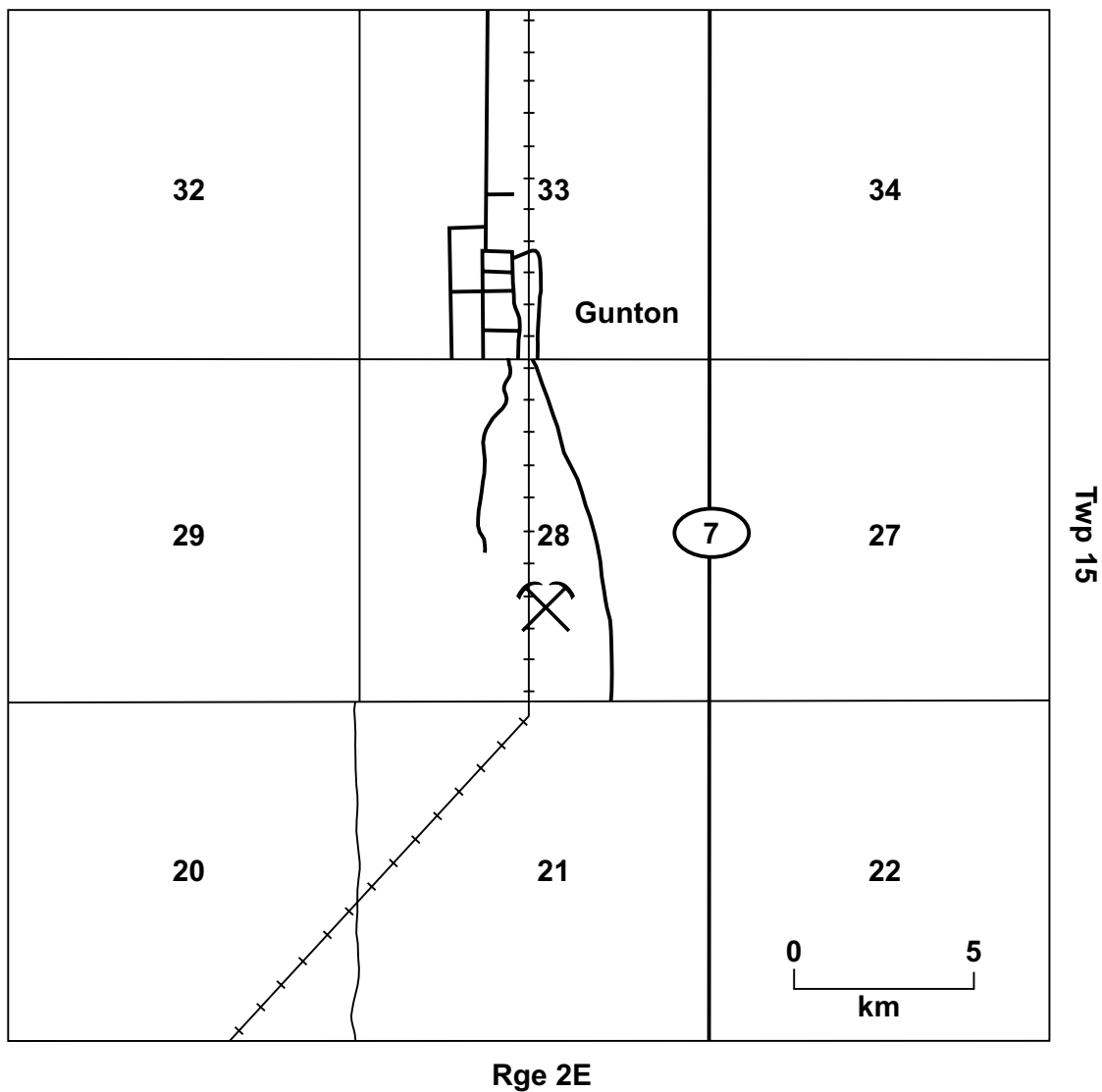
GUNTON MEMBER (6.7 m): dolomite; buff brown wackestone and mudstone; thin to thick bedded; rare recessive red brown beds; oxidized at the top; fine crystalline; 5-7% porosity - vuggy; red beds are 10-15 cm thick.

**SITE NOTES:** "Type section for the Gunton Member". Presently used for rock climbing.





### Gunn or No. 2 Quarry





Gunn 01 – 1995-07-20, Gunn or No. 2 Quarry at Gunton. Gunton Member of the Stony Mountain Formation. View towards the northwest.



Gunn 02



Gunn 03



Gunn 04

Gunn 02-04 – 1995-07-20, Gunn or No. 2 Quarry at Gunton. Gunton Member of the Stony Mountain Formation. Panorama view northeast to southeast.





Gunn 02 – 1995-07-20, Gunn or No. 2 Quarry at Gunton. Gunton Member of the Stony Mountain Formation. Panorama view towards the northeast.



Gunn 03 – 1995-07-20, Gunn or No. 2 Quarry at Gunton. Gunton Member of the Stony Mountain Formation. Panorama view towards the east.





Gunn 04 – 1995-07-20, Gunn or No. 2 Quarry at Gunton. Gunton Member of the Stony Mountain Formation. Panorama view towards the southeast.



Gunn 05 – 1995-07-20, Gunn or No. 2 Quarry at Gunton. Gunton Member of the Stony Mountain Formation. Fracture pattern on stripped off surface of quarry, at southeast end.



**NAME:** LIME OR NO.3 QUARRY

**UQI:** 1Q/14-28-15-02E1

**EAST:** 623575

**NORTH:** 5574650

**DATE:** 1995-07-20

**OWNER:** CBR Cement Canada Ltd.

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** No

**LOCATION:** Gunton, 14-28-15-02E1

**SIZE:** Small (120 m x 60 m)

**THICKNESS:** 4.5 m

**OVERBURDEN:** 0.5 - 1.0 m

**USE:** Building stone, lime and crushed stone

**REFER:** Bannatyne (1988)

**M.I.C. NO:**

**MAPS:** 62I/6

**PHOTO:** 88-5-12: Gunton school; 88-5-13 to 15: panoramic; 16: kiln; 17: quarry; 18: quarry and school

**JOINTS:** 025°, 122°

**FORMATION:** Stony Mountain: Gunton Member

**FRACTURES:** Blocky

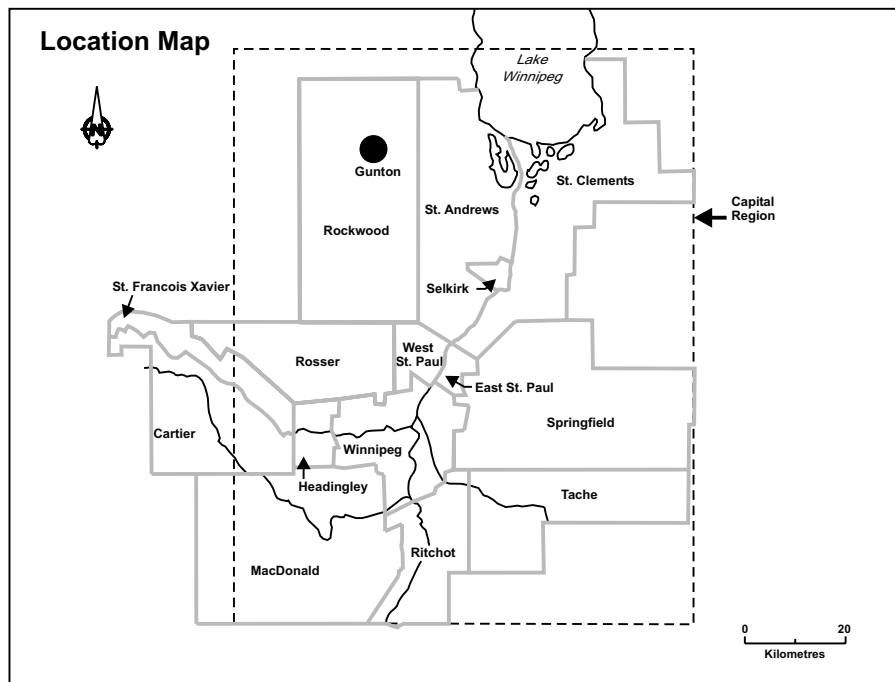
**FOSSILS:**

**MINERAL:**

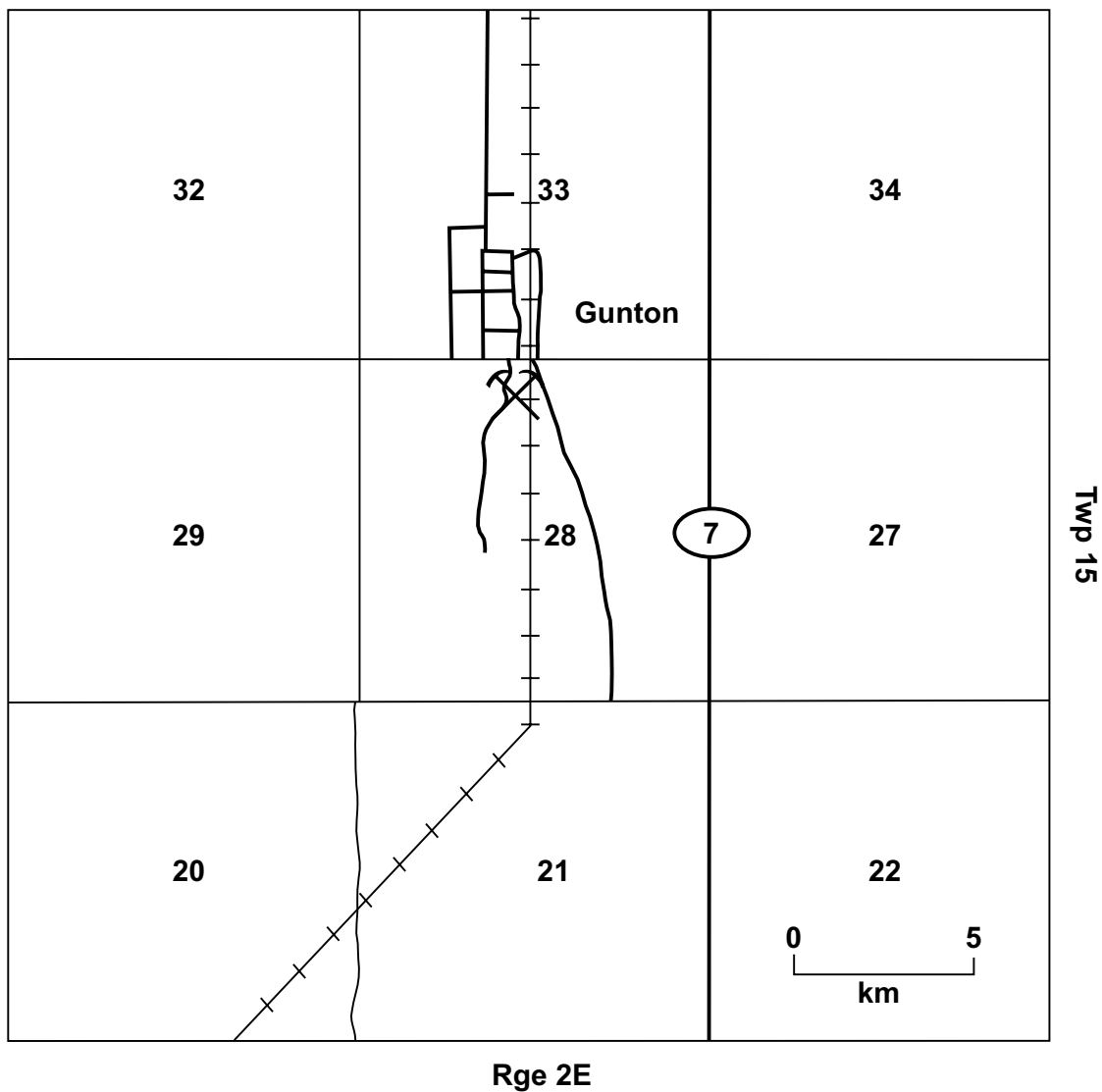
**SECTION:** STONY MOUNTAIN FORMATION:

GUNTON MEMBER (4.5 m): interbedded red brown to buff calcitic dolomite (Gunton and Penitentiary - like units); wackestone to mudstone; thin to very thick bedded; many large blocks still on floor; sucrosic; fine to medium crystalline; 5-7% porosity - vuggy.

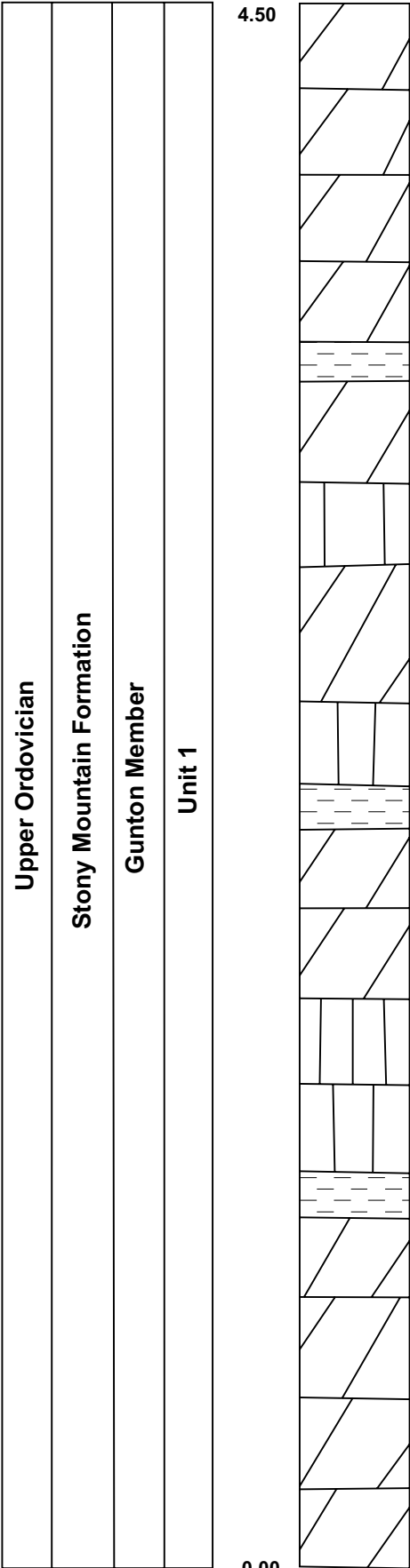
**SITE NOTES:**



### Lime No. 3 Quarry



Lime or No. 3 Quarry



Interbedded red brown to buff calcitic dolomite (Gunton and Penitentiary-like units); wackestone to mudstone; thin to very thick bedded; many large blocks still on the floor; sucrosic; fine to medium crystalline; 5-7% porosity, vuggy



Lime 01 – 1995-07-20, Lime or No. 3 Quarry at Gunton, Gunton Member of the Stony Mountain Formation. School, in the background to the north, is constructed of Gunton Member material.



Lime 04 – 1995-07-20, Lime or No. 3 Quarry at Gunton, Gunton Member of the Stony Mountain Formation. Very overgrown and abandoned.





Lime 05 – 1995-07-20, Lime or No. 3 Quarry at Gunton, Gunton Member of the Stony Mountain Formation. Very overgrown and abandoned.

**NAME:** GUNTON QUARRY SOUTH

**UQI:** 1Q/15-21-15-02E1

**EAST:** 623685

**NORTH:** 5572900

**DATE:** 1995-07-26

**OWNER:** RM of Rockwood

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** No

**LOCATION:** Gunton, 15-21-15-02E1

**SIZE:** Medium

**THICKNESS:** 5.4 m

**OVERBURDEN:** 1.5 - 2.0 m

**USE:** Crushed stone

**REFER:** Bannatyne (1988)

**M.I.C. NO:** 877

**MAPS:** 62I/6

**PHOTO:** 88-6-6, 7: section; 8 to 11: panoramic

**JOINTS:**

**FORMATION:** Stony Mountain: Gunton/Penitentiary members

**FRACTURES:** Blocky

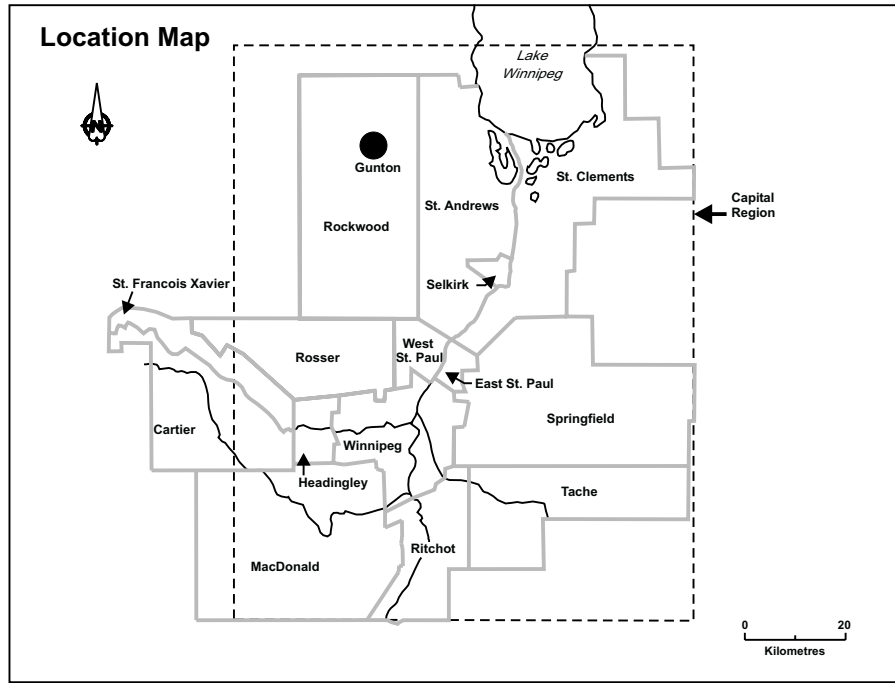
**FOSSILS:** Worm burrows, brachiopods

**MINERAL:**

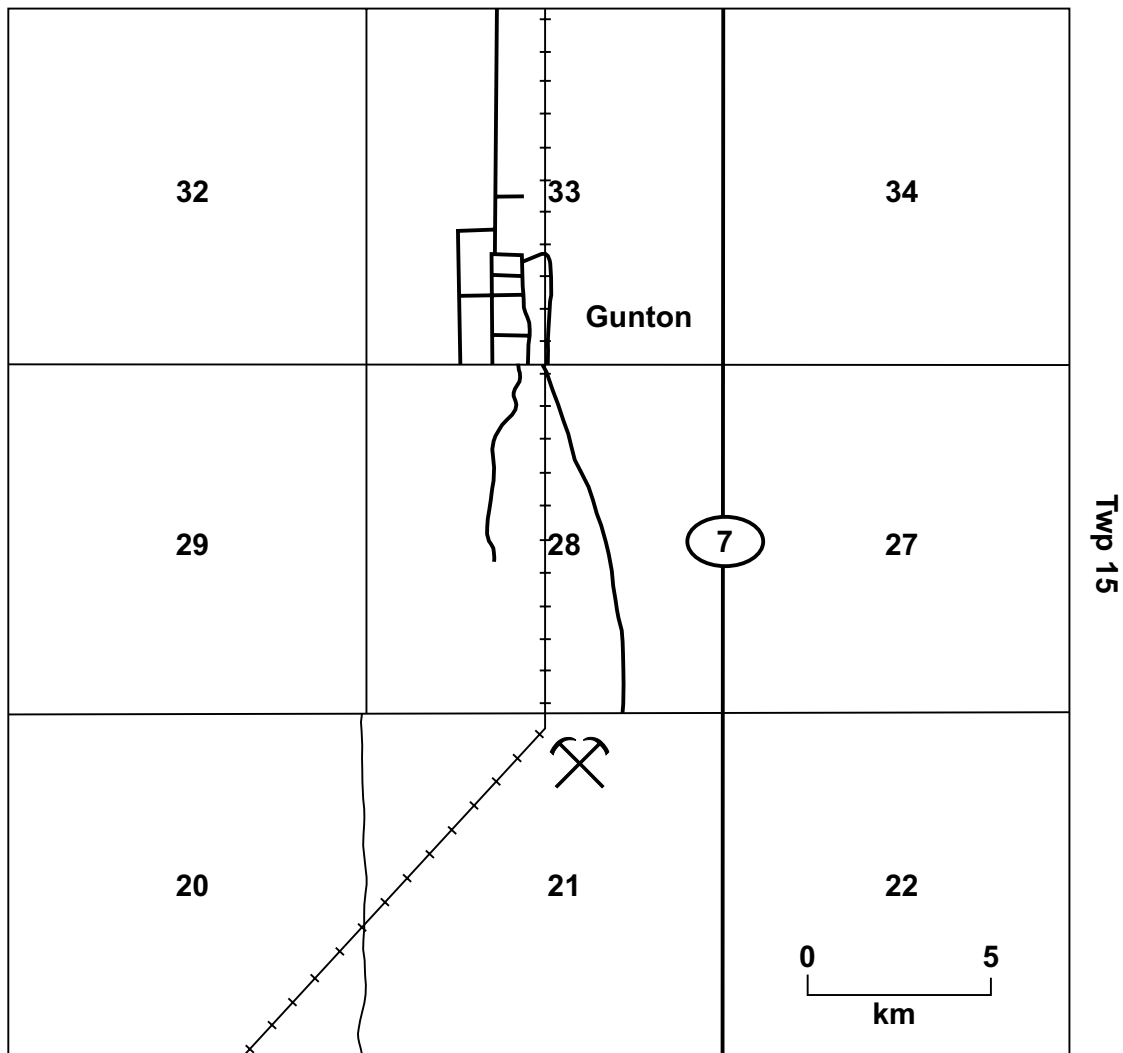
**SECTION:** STONY MOUNTAIN FORMATION:

GUNTON MEMBER (4.3 m): dolomite; tan buff wackestone; thin to thick bedded; fine to medium crystalline; scattered interbedded red brown mudstone beds towards the base (Penitentiary - like); mottled; 5-6% porosity - vuggy and fracture porosity. PENITENTIARY MEMBER (1.1 m): dolomite; red brown mudstone; massive; fine to medium grained; mottled; some burrows; sharp upper contact; 3-5% porosity - pinpoint and fracture.

**SITE NOTES:** Samples: 99-92-IN-20-1 (0 - 7)

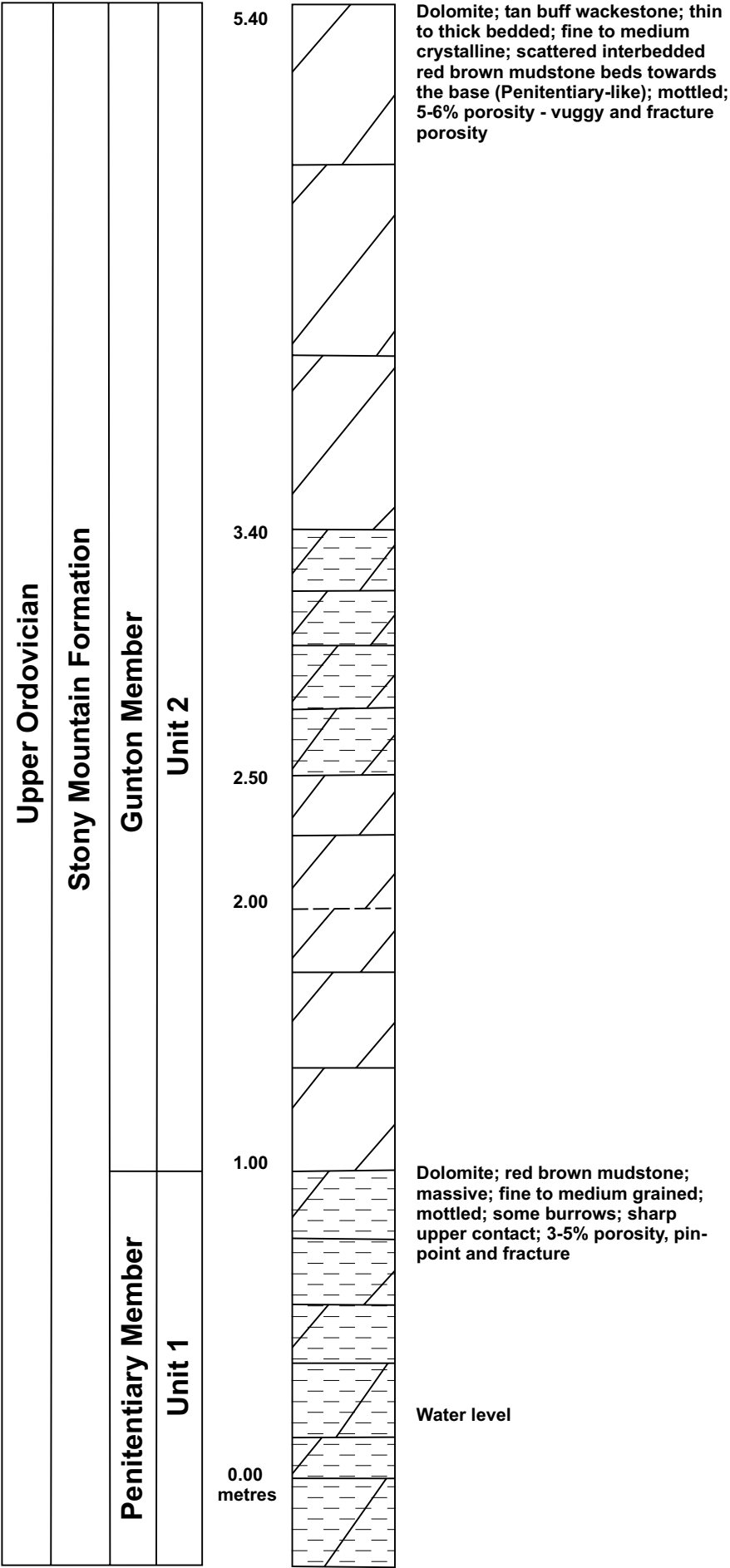


### Gunton Quarry South



Rge 2E

Gunton Quarry South







Gunton 01 – 1995-07-26, Gunton South Quarry, Gunton Member of the Stony Mountain Formation. West wall, near southwest corner of quarry. JDB for scale.



Gunton 02 – 1995-07-26, Gunton South Quarry, Gunton Member of the Stony Mountain Formation. South wall, near southwest corner of quarry. JDB for scale.



Gunton 03



Gunton 04



Gunton 05



Gunton 06

Gunton 03-06 – 1995-07-26, Gunton South Quarry, Gunton Member of the Stony Mountain Formation. Panorama view southwest to northeast.



Gunton 03 – 1995-07-26, Gunton South Quarry, Gunton Member of the Stony Mountain Formation. Panorama view towards the southwest.





Gunton 04 – 1995-07-26, Gunton South Quarry, Gunton Member of the Stony Mountain Formation. Panorama view towards the west.



Gunton 05 – 1995-07-26, Gunton South Quarry, Gunton Member of the Stony Mountain Formation. Panorama view towards the northwest.



Gunton 06 – 1995-07-26, Gunton South Quarry, Gunton Member of the Stony Mountain Formation. Panorama view towards the north-northeast.



PRODUCT Dolomite

N.T.S. AREA 62 I/6 SW SE

REF. STN 1

**NAME OF PROPERTY:**

Gunton Quarries

**OWNER OR OPERATOR AND ADDRESS**

Building Products & Concrete Supply  
111 Christie  
Winnipeg, MB

Lat. 50°18'50"  
50°18'20"

Long. 97°15'50"  
97°15'45"

Uncertainty: 50 m

UTM: NAD 83

623590E

5573625N

Williams Quarry

UTM: NAD 83

623750E

5573350N

Gunn Quarry

UTM: NAD 83

623575E

5574650N

Lime Quarry

L.S. 6,7,14 Sec. 28

Tp. 15

R. 2 EPM

**OBJECT LOCATED:** Dolomite Quarries (3) **MINING DIVISION** Winnipeg**DESCRIPTION OF DEPOSIT**

A total of 13 m of strata were exposed (in 1943) showing part of the Penitentiary Member of the Ordovician Stony Mountain Formation and most of the overlying Gunton Member, including the "Birse beds". The Penitentiary Member is composed of soft argillaceous dolomite; 4.5 m of the maroon, green and yellow beds were exposed. The lower 1.8 m is fossiliferous. 8.4 m of Gunton dolomite is exposed, the upper 2-3.5 m being equivalent to the beds seen at the Birse quarry. The light buff dolomite is very hard, dense and brittle with a conchoidal fracture. There are occasional reddish to brown beds. The "Birse beds" are thin bedded and dense with regular porosity. Chert nodules are present in some horizons. The stripping seldom exceeds 1.2 m.

Physical Properties: For properties pertaining to use as building stone see Parks (1916).

Chemical Properties: CaCO<sub>3</sub> from 45.11 to 54.90% and MgCO<sub>3</sub> from 37.68 to 44.48%, (see Goudge, 1944) for the Penitentiary and the Gunton Members, respectively.

Uses: Crushed stone, rubble, lime, some building stone.

**HISTORY OF EXPLORATION AND DEVELOPMENT**

The quarries are located in L.S. 6, 7 and 14, sec. 28, immediately south of Gunton, and 1 km further to the south.

1905: Enoch Williams & Sons were operating a quarry in L.S. 6 on the west side of the CPR track.

1906: John Gunn purchased the John Develin property in L.S. 7 on the east side of the CPR track. He put in a full line of quarry equipment. Also in 1906, Enoch Williams & Co. installed a stone crusher and

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NAME OF PROPERTY      Gunton Quarries  
N.T.S. AREA 62 I/6 SW SE

FILE NO. 877  
REF. STN 1

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#### HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

- steam plant on their property. Donald Gunn sold his quarry property (probably the one in L.S. 14) to a syndicate who also installed heavy equipment. Most of the work was carried out during the summer months. The quarries produced crushed stone and building stone and lime. At times from 300 to 500 men were employed (Rockwood Echoes).
- 1914: The quarries in L.S. 6 and 7 were no longer in operation. The quarries in L.S. 6 and L.S. 14 are about 0.55 km apart. The quarry in L.S. 14 (known then as the Lime Quarry) was 120 m by 60 m. Lime was produced in set kilns.
- 1916: Manitoba Quarries, Limited operated the three quarries from which a large quantity of stone had been removed. A considerable reserve was still available. Their No. 1 quarry (the old Williams quarry in L.S. 6) was 150 m by 90 m with a depth of 8.4 m. Their No. 2 quarry (the old Gunn quarry in L.S. 7) was about 180 m by 75 m. The depth was the same, but towards the south end the thickness of the upper layer was reduced from 3.5 m to 2.5 m by erosion of the surface. Stripping was light and much stone was available to the west and north. Their No. 3 quarry (in L.S. 14 to the west of the CPR track) was still about 120 m by 60 m. The depth was 6 m exclusive of overburden. The upper layer, which is 3.5 m thick in quarries 1 and 2, is here reduced to 0.75 m. At the north end of the quarry it is almost totally eroded. The surface also slopes off towards the west but to the east and south a large amount of stone was available. There were crushers in all 3 quarries.
- 1927: Around 1917 quarrying operations ceased and the quarries were still idle in 1927.
- 1963: About 1963 the No. 2 quarry was operated by Building Products & Concrete Supply for use in construction of the airport runway at Gimli.
- 1963- Additional stone has been removed from no 2 quarry, but records are not available.
- 1980: The Gunton Quarry was intermittent or non-operational.
- 1995: Divided into 3 quarries: #1 Quarry is owned by CBR Cement Canada but is still not in use, UTM 623590E, 5573625N, #2 and #3 Quarry are also no longer in use with UTM 623750E, 5573500N and 623575E, 5574650N
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Associated minerals or products of value

Dolomite.

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#### HISTORY OF PRODUCTION

Around 1905 and 1906 quarrying was carried out by Enoch Williams and Sons and John Gunn. Crushed stone, building stone and lime were produced. In 1914 they were no longer in operation.

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**NAME OF PROPERTY**      Gunton Quarries  
**N.T.S. AREA** 62 I/6 SW SE

**FILE NO.** 877  
**REF.** STN 1

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**HISTORY OF PRODUCTION (continued)**

In 1916, Manitoba Quarries, Limited was operating all 3 quarries and producing crushed stone. About 1917 quarrying operations ceased. They remained idle until about 1963 when the No. 2 quarry was reopened by Building Products and Concrete Supply, to supply stone for construction of the airport runway at Gimli. Additional quantities have since been removed.

Shipping Point: Gunton

Distance from Mine:

Material shipped: Lime, rubble, stone

Carrier: Rail, truck

Destination: 52 km to Winnipeg

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<b>NAME OF PROPERTY</b>	Gunton Quarries	<b>FILE NO.</b> 877
	<b>N.T.S. AREA</b> 62 I/6 SW SE	<b>REF.</b> STN 1

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Mineral Map of Manitoba (1980), Sc. 1:1,000,000, Manitoba Mineral Resources Division.

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**REMARKS**

Goudge (1944) noted that similar rock is exposed 3.2 km south of the quarries. The City of Winnipeg took out quarry location lease M275 in 1957 in L.S. 7 and 8, sec. 21, Tp. 15 r. 2 EPM. In 1978 it was converted to quarry mineral lease QL 126. No work has been done on their property.

Early history of the quarry is reported in the book "Rockwood Echoes", a community history.

Update: In 1984, R. Munroe opened a quarry in 1.s.15 and 16, 21-15-2E, in rock similar to that in the other quarries in the Gunton area.

STN 1: previously referenced as DOL 1

Quarry 1: UQI 6-28-15-02E1

Quarry 2: UQI 7-28-15-02E1

Quarry 3: UQI 14-28-15-02E1

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<b>Comp./Rev.</b>	NLL	KH
<b>By Date</b>	08-78	05-1996





Komarno 014 – 2001-06-20, Gunton Member of the Stony Mountain Formation. View of the north wall. RKB and Ed Dobrzanski for scale.



Komarno 013 – 2001-06-20, Gunton Member of the Stony Mountain Formation. View towards the south. Van for scale.





Komarno 012

Komarno 011

Komarno 010

Komarno 09

Komarno 08

Komarno 012 to 008 – 2001-06-20, Gunton Member of the Stony Mountain Formation. View from west to northeast.



Komarno 012 – 2001-06-20, Gunton Member of the Stony Mountain Formation. View towards the west.





Komarno 011 – 2001-06-20, Gunton Member of the Stony Mountain Formation. View towards the northwest.



Komarno 010 – 2001-06-20, Gunton Member of the Stony Mountain Formation. View towards the north.





Komarno 09 – 2001-06-20, Gunton Member of the Stony Mountain Formation. View to the north-northeast.



Komarno 08 – 2001-06-20, Gunton Member of the Stony Mountain Formation. View towards the northeast.



**NAME:** STONEWALL QUARRY PARK

**UQI:** 1Q/01-36-13-01E1

**EAST:** 619725

**NORTH:** 5555425

**DATE:** 1995-08-02

**OWNER:** Stonewall Quarry Park

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** No

**LOCATION:** Stonewall, 01-36-13-01E1

**SIZE:** Large

**THICKNESS:** 5.3 m

**OVERBURDEN:** 0.5 m

**USE:** Lime

**REFER:** Bannatyne (1975, 1988)

**M.I.C. NO:** 868

**MAPS:** 62I/3, Argyle AN34

**PHOTO:**

**JOINTS:** 25°

**FORMATION:** Stonewall

**FRACTURES:**

**FOSSILS:**

**MINERAL:**

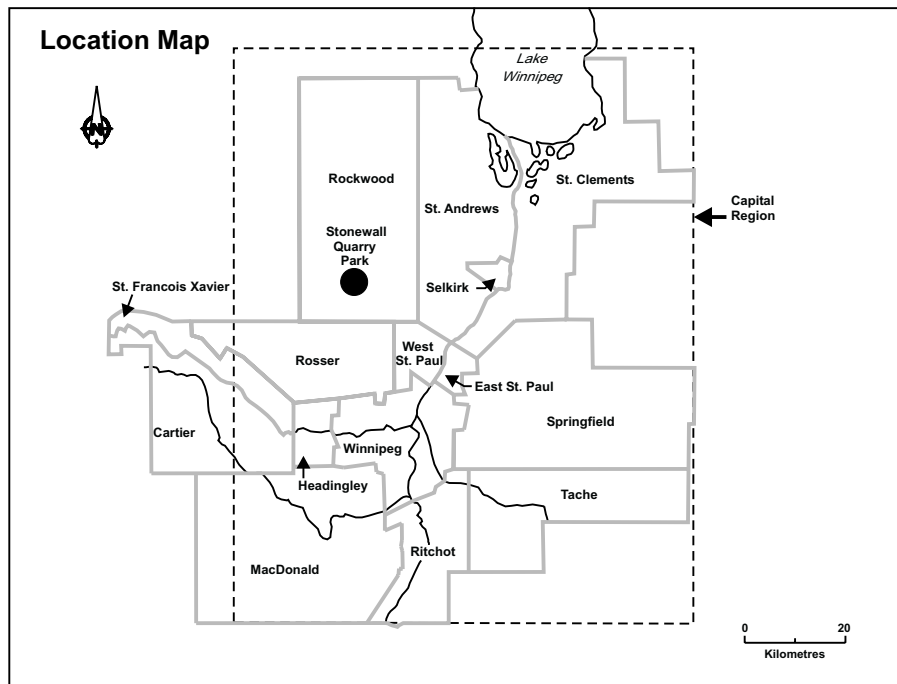
**SECTION:** UPPER STONEWALL FORMATION:

UNIT 2 (3.5 m): dolomite; buff brown mudstone to wackestone; thin to medium to massive bedded; 4 - 5% porosity, vuggy; favositids corals; thin red mudstone beds on second bench; buff tan to brown; 2 - 4% porosity, pinpoint.

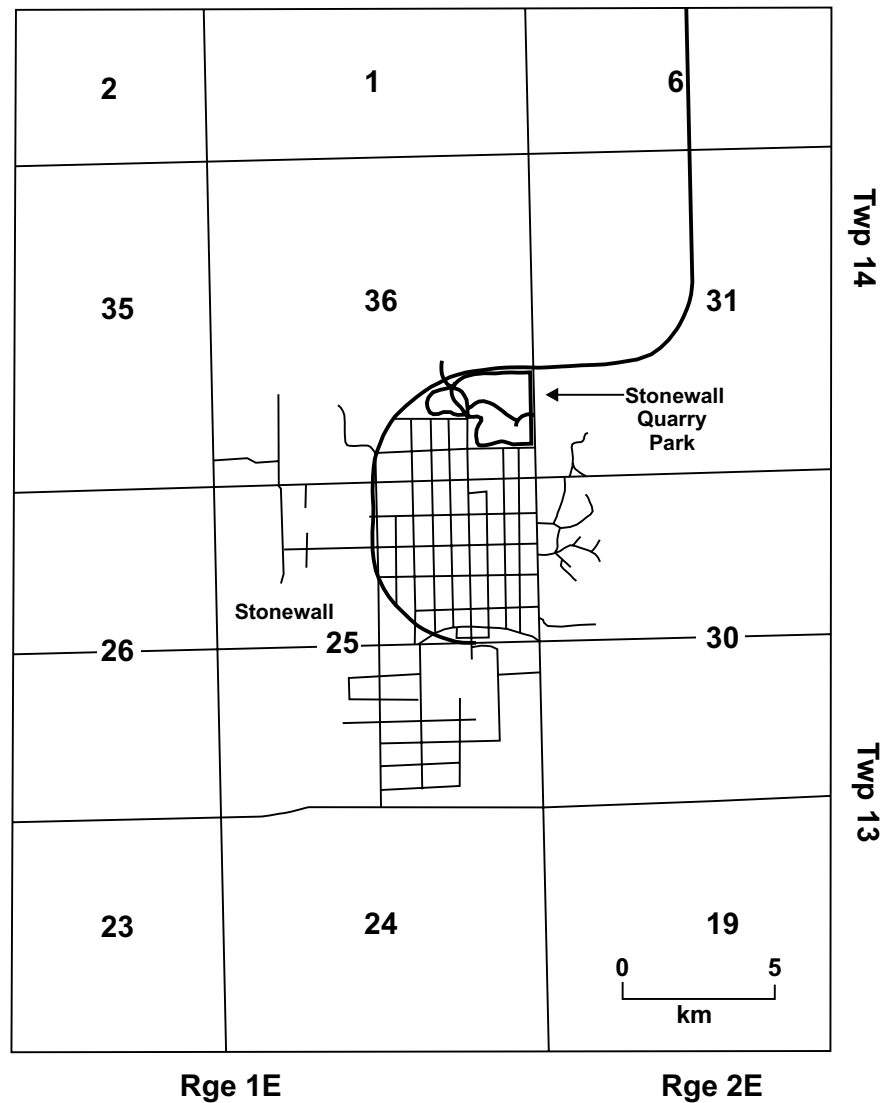
LOWER STONEWALL FORMATION:

UNIT 1 (1.8 m); dolomite; buff brown wackestone; vuggy; medium to thick bedded; fine to medium crystalline; large (up to 8 cm) favositid coral heads associated with zones of salt casts (1 - 2 cm); 5 - 8% porosity; Gunton - like.

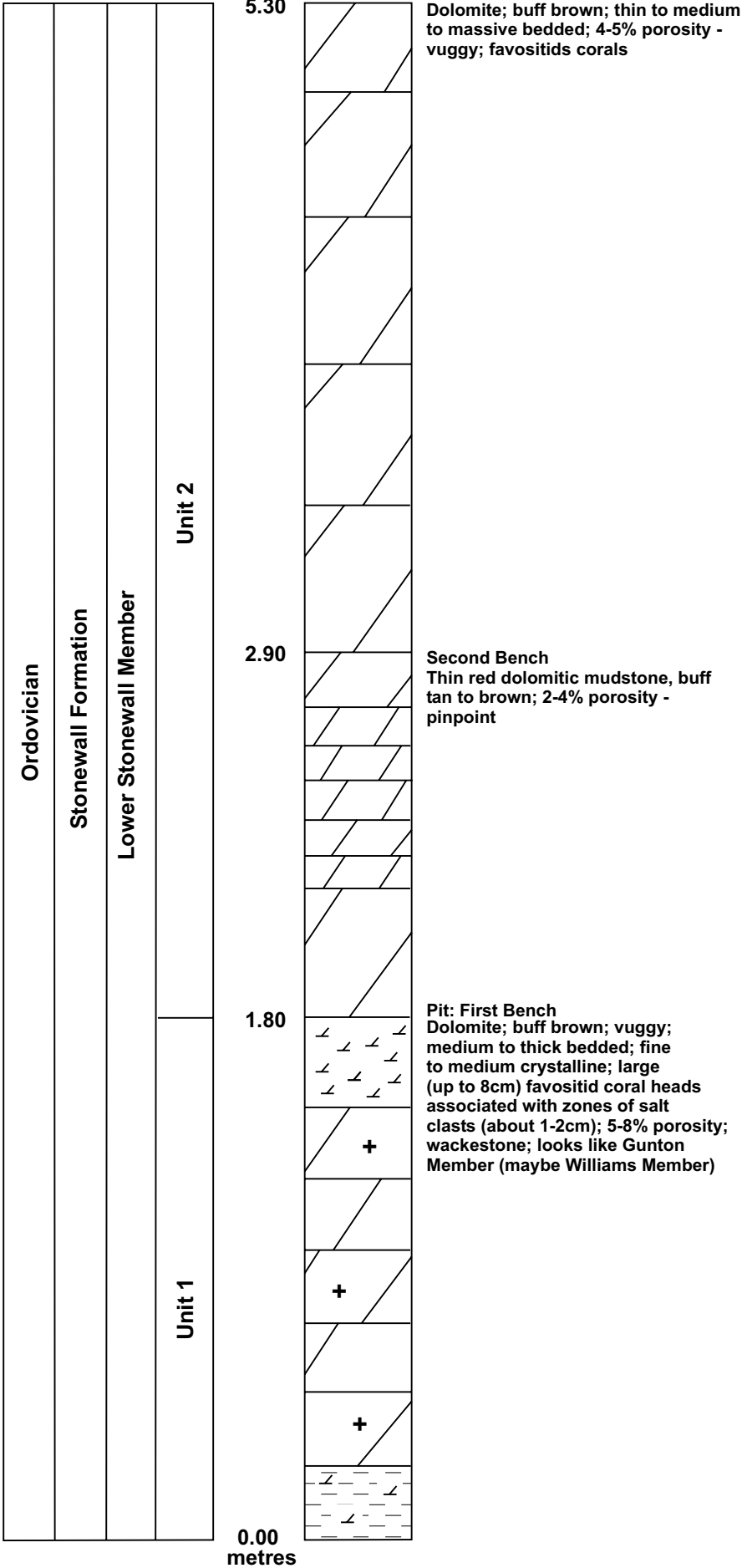
**SITE NOTES:**



## Stonewall Quarry Park



Stonewall Quarry Park





Stonewall 01



Stonewall 02

Stonewall 01 & 02 - 1995-08-02, Three lime kilns at Stonewall Quarry Park, formerly used to produce dolime or dolomitic lime. View to northwest and north.



Stonewall 01 - 1995-08-02, Three lime kilns at Stonewall Quarry Park, formerly used to produce dolime or dolomitic lime. View towards the northwest.





Stonewall 02 - 1995-08-02, Three lime kilns at Stonewall Quarry Park, formerly used to produce dolime or dolomitic lime. View towards the north.



Stonewall 03



Stonewall 04

Stonewall 03 & 04 - 1995-08-02, Former quarry at Stonewall Quarry Park, looking east-northeast and east, kilns across PR236 in distant background.



Stonewall 03 - 1995-08-02, Former quarry at Stonewall Quarry Park, looking east-northeast, kilns across PR236, in distant background.



Stonewall 04 - 1995-08-02, Former quarry at Stonewall Quarry Park, looking east.



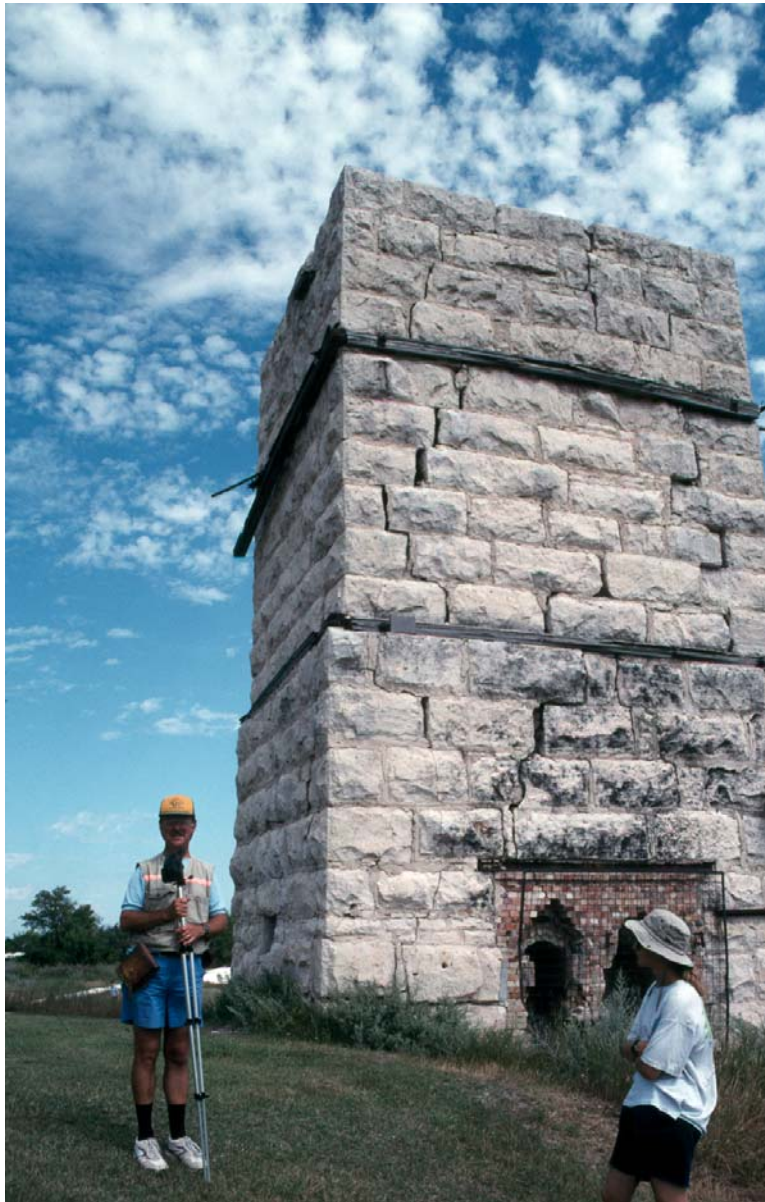


Stonewall 12 - 1995-08-02, Lime kilns east of PR236 and Stonewall Quarry Park.



Stonewall 05 - 1995-08-02, Williams Member (Stonewall Formation) in pit within former quarry at Stonewall Quarry Park, west wall.





Stonewall 06 - 1995-08-02, Lime kiln at former quarry site, now Stonewall Quarry Park. Karla Horsman and JDB for scale.



Stonewall 07



Stonewall 08

Stonewall 07 & 08 - 1995-08-02, Williams Member (Stonewall Formation) in pit within former quarry at Stonewall Quarry Park, north and northeast wall of pit.



Stonewall 07 - 1995-08-02, Williams Member (Stonewall Formation) in pit within former quarry at Stonewall Quarry Park, north wall of pit.





Stonewall 08 - 1995-08-02, Williams Member (Stonewall Formation) in pit within former quarry at Stonewall Quarry Park, northeast wall of pit.



Stonewall 09 - 1995-08-02, Williams Member (Stonewall Formation) in pit in foreground. Lower Stonewall Formation in background, within former quarry at Stonewall Quarry Park, looking northeast. Karla Horsman for scale.





Stonewall 10 - 1995-08-02, Horizontal kilns (east side) at Stonewall Quarry Park, looking south.  
Karla Horsman for scale.



Stonewall 11 - 1995-08-02, Horizontal kilns (west side) at Stonewall Quarry Park, looking south.  
Karla Horsman for scale.

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**MANITOBA INDUSTRY, TRADE AND MINES****MINERAL INVENTORY FILE NO. 868**

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**PRODUCT** Dolomite**N.T.S. AREA** 62 I/3 NW**REF.** DOL 2

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**NAME OF PROPERTY:**

Stonewall Quarry Park

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**OWNER OR OPERATOR AND ADDRESS**Stonewall Quarry Park  
200 Main Street  
Winnipeg, MB

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Lat. 50°08'30"

Long. 97°19'15"

Uncertainty: 50 m

UTM: NAD 83

619725E

5555425N

Sec. 30, 31

Tp. 13

R. 2 EPM

Sec. 36

Tp. 13

R. 1 EPM

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**OBJECT LOCATED:** Dolomite Quarries (7)**MINING DIVISION** Winnipeg

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**DESCRIPTION OF DEPOSIT**

The dolomite at Stonewall is obtained from horizontally bedded dolomite of the Stonewall Formation that caps a low circular mound, nearly 1.5 km in diameter, on which the town of Stonewall is built. The Stonewall Formation, once thought to be of Silurian age, is now considered to be, at least in part, of upper Ordovician age. Recent studies suggest that the Ordovician-Silurian boundary may lie within the formation at a level above the section in the quarry. The Stonewall Formation comprises an upper 4 m section of massive microcrystalline light grey dolomite, 2 m of light grey and red arenaceous and argillaceous dolomite and a lower 3.3 m section of mottled light yellow-grey vuggy to reefoid dolomite. This lower part of the formation is exposed in the quarries, which form a semi-circle around the north and east of Stonewall.

Chemical Properties:  $\text{CaCO}_3$  ranges from 52.36% to 55.48% and  $\text{MgCO}_3$  ranges from 41.43% to 44.98%. For chemical analysis see: Wells (1913), and Goudge (1944).

Physical Properties: See: Parks (1916) for standard tests for building stone.

Uses: For high-magnesium lump and crushed lime for plaster, mortar, and sulfite pulp; crushed stone for flux; rubble; dimension stone; fettling furnace bottoms. Used by Gypsum Lime and Alabastine, Limited in their Winnipeg plan for conversion to hydrated lime.

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**HISTORY OF EXPLORATION AND DEVELOPMENT**

The quarries are located in L.S. 1 and 8, Sec. 36, Tp. 13, R. 1E, and in L.S. 4 and 5, Sec. 31, and L.S. 12 and 13, Sec. 30 of Tp. 13, R. 2E. Stonewall is about 30 km northwest of Winnipeg.

1880: John Gunn began quarrying on 16 hectares in Sec. 30, Tp. 13, R. 2E.

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**NAME OF PROPERTY**      Stonewall Quarry Park  
**N.T.S. AREA** 62 I/3 NW

**FILE NO.** 868  
**REF.** DOL 2

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**HISTORY OF EXPLORATION AND DEVELOPMENT (continued)**

- 1882: Enoch Williams began quarrying in Sec. 31, Tp. 13, R. 2 E and later opened another quarry in Sec. 36, Tp. 13, R. 1 E across the road. Andy Patterson also quarried on a property in the southwest corner of Sec. 31, Tp. 13, R. 2 E.
- 1905: Five quarries were in operation. Irwin's quarry was the westernmost quarry in Sec. 36. It was owned and operated by Peter Irwin and Sons who had recently started operations. The output of rubble in 1905 was 725 m<sup>3</sup> per month, but in a battery of pot kilns was being erected. Fullbrook's quarry (also in Sec. 36) was east of Irwin's quarry. It was owned and operated by J.W. Fullbrook, but would soon be controlled by The Winnipeg Supply and Fuel Company, Limited. The working face of the quarry was about 3 m thick. The quarry had 2 pot kilns, 1 draw kiln and a crushing outfit delivering the product to flat cars on the railway siding. 60 m<sup>3</sup> of rubble and 96 m<sup>3</sup> of crushed stone were produced daily and 2,100 hectolitres of lime were produced a month. E. Williams and Company were still operating the Williams quarry (in SW1/4 Sec. 31). It had a working face 3.3 m thick. The quarry had 2 pot kilns and a crushing outfit. The stone was crushed for concrete and the fines were used for roofing material. Monthly production was 1,100 m<sup>3</sup> of rubble and crushed stone and 2,100 hectolitres of lime. Patterson's quarry (also in SW1/4 Sec. 31) was owned and operated by A. Paterson & Company. The working face of the quarry was only about 1.5 m. One pot kiln was in operation. Twenty-two cubic metres of rubble per day, as well as 1,400 hectolitres of lime per month, were produced. Gunn's quarry in sec. 30 (operated by John Gunn & Sons) had a working face of 2.4 m. The crushing plant had not yet been installed but lime was produced by one pot kiln one draw kiln. Self-dumping mine cars carried broken stone from the quarry over trestlework to the top of the draw kiln. There were railway tracks on two sides of the kiln so that wood could be brought in on flat cars and unloaded near the firebox while the lime coming from the bottom of the kiln could be shoveled into boxcars on the other track.
- 1910: The Winnipeg Supply and Fuel Company purchased Pattern's property. They had already bought Fullbrook's and Irwin's interests.
- 1916: There were two companies in operation: Winnipeg Supply and Fuel and Manitoba Quarries, Limited (made up of the Gunn and William interests). Winnipeg Supply's No. 1 quarry (the old Irwin quarry) was 270 m by 120 m and 3.3 m deep excluding overburden. The No. 1 quarry property was north of Kinsey Street, between Anna Avenue and Jackson Avenue, south of the C.P.R. tracks (see diagram). Their No. 2 quarry (the old Fullbrook quarry) was 90 m by 90 m and advancing east and south. The property north of Lilly Street was 300 m by 150 m. Winnipeg Supply's No. 3 quarry (the old Patterson quarry) is about 180 m by 180 m. It is 3.7 m deep excluding the 1.5 m of overburden.

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NAME OF PROPERTY      Stonewall Quarry Park  
N.T.S. AREA 62 I/3 NW

FILE NO. 868  
REF. DOL 2

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**HISTORY OF EXPLORATION AND DEVELOPMENT (continued)**

The property (8 hectares) had 400 m frontage on Young Street and 490 m on Hickey Avenue. Winnipeg Supply operated five draw kilns, 1 jaw rusher and 1 rotary crusher.

Manitoba Quarries, Limited held the block of land east of Winnipeg Supply's No. 1 property and north of their No. 2 property on which the second Williams' quarry was situated. They also held the property east of Hickey Avenue between Rothwell Street and Young Street on which the old Gunn's quarry was situated. On their first mentioned property two quarries were opened. Each was about 180 m long, 90 to 120 m wide and about 3 m deep. Their opening on the second property extended north and south from Young to Higgins and extends as far west as McDonald (see diagram). The quarry was 2.5 m deep. They had two drawn kilns, and a crushing plant, which was not in operation. Prior to 1916, the uppermost 3 m of dolomite (in places in beds as much as 0.9 m thick) had been used as a building stone (e.g. Land Titles Office in Stonewall) as noted in Parks (1916), pp.79, 80 and Pl. XIX.

1927: The Winnipeg Supply and Fuel Company was now the only company operating. Stone was being extracted from the two quarries, one on either side of Hickey Avenue. The overburden was removed by 0.3 m<sup>3</sup> electric shovel. At the quarry east of Hickey the stone was blown down to the floor then loaded into horse-drawn dump carts and hauled either to the kilns or to the crusher. At the quarry west of Hickey Avenue, the stone was loaded into skips on horse-drawn trams. The plant consisted of a battery of 3 kilns at the west quarry and two kilns and a crusher at the east quarry. The maximum production was 850 hectolitres of lime a day.

1930: Winnipeg Supply still operated the five lime kilns and the crushing plant. It marketed the quick lime in lump form but part of the output was taken by Canada Gypsum and Albastine, Ltd. who hydrated it at their Winnipeg plant and put it on the market in that form. The old Gunn quarry was now owned by Winnipeg Supply although it was idle. Only a road (Young Street) separated it from their east quarry. The Gunn pit was 600 m long and averaged 120 m in width. It was operated for dimension stone for heavy construction and also for making lime. The quarry face was only 0.5-1.5 m high on the east side.

1944: By 1944 Winnipeg Supply owned all the quarryable high-grade dolomite remaining on the outskirts of the town. In 1944 the workings were on the north edge of the town. The quarry face was about 460 m long extending in an arc from Hickey Avenue West to Jackson Avenue. It was 2 m high and being worked towards the north where it was decreasing. (In the southeast corner the face was 4.2 m high). The east and west quarries were joined across Hickey



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**NAME OF PROPERTY**      Stonewall Quarry Park  
**N.T.S. AREA** 62 I/3 NW

**FILE NO.** 868  
**REF.** DOL 2

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**HISTORY OF EXPLORATION AND DEVELOPMENT (continued)**

Avenue by an underpass and were operated as a unit. Overburden was stripped by an electric shovel and loaded into trucks for disposal in a nearby dump. Jackhammers were used for drilling, and the rock was loaded by hand onto 0.8 m<sup>3</sup> steel skips set on trucks. The trucks were hauled by horse, in trains of 4, over a narrow-gauge tramway to the west quarry. At the quarry, the skips were lifted from the trucks by a derrick and were dumped into the kilns. Three of the five kilns at the two plants were in operation in 1944. Lump lime and crushed lime were shipped. Adjoining the east plant was a small crushing plant in which stone too small for making lime was crushed and screened for use as flux.

- 1946: The quarry produced 32 260 tonnes of dolomite, 26 490 tonnes of which were calcined. The balance was used for metallurgical flux, road ballast, etc.; four of the five kilns were in operation.
- 1947: The quarry produced 38 220 tones of dolomite, 29 550 tonnes of which were calcined.
- 1948: The quarry operated for 365 days during the year and all five kilns were in use. Lignite, sub-bituminous coal, and cordwood were used in firing the kilns. Production was 38 420 tonnes of dolomite, 30,880 tonnes of which were calcined.
- 1963: By 1963 the old Irwin quarry had been rehabilitated and converted into a recreation area (Kinsmen's Park).
- 1965: The west quarry measured 300 by 300 m (maximum) with a 3.5 m face. It has not been worked since 1963. The east quarry measured 390 by 270 m (maximum) with a 3.5 m face. Work had also ended in it. The south quarry (old Gunn quarry) was 600 m long, 275-300 m wide with a 2.7-3.6 m face. The dolomite reserves were depleted in 1965.
- 1967: The kiln operation was supplied for a time from the company's quarry at Lillies' Farm, but the kiln operation was shut down in 1967. See M.I. card 62 I/3, DOL 2 for description of Lillies' Farm Quarry. Commercial quarrying ceased in 1967 with the depletion of high quality reserves of stonewall formation limestone.
- 1996: The site has been rehabilitated. It is now called Stonewall Quarry Park, a tourist site with an abundance of fossils.
- Note: Although Stonewall Quarry Park has not been in operation for some time the Stonewall East quarry, which is approximately 5 km northeast of the park, is operational and is producing dolomite and crushed stone/dolomite.
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Associated minerals or products of value  
Stone (dolomite).

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**NAME OF PROPERTY**      Stonewall Quarry Park  
**N.T.S. AREA** 62 I/3 NW

**FILE NO.** 868  
**REF.** DOL 2

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**HISTORY OF PRODUCTION**

1880: John Gunn began quarrying east of Stonewall, in Sec. 30.  
1882: Enoch Williams opened a quarry in Sec. 31, north of John Gunn's and later another in Sec. 36. Andy Patterson also quarried in Sec. 31.  
1905: Five quarries were being operated: Irwin's quarry produced 725 m<sup>3</sup> of rubble per month; Fullbrook's produced 60 m<sup>3</sup> of rubble and 96 m<sup>3</sup> of crushed stone daily and 2,100 hectolitres of lime each month. Williams produced 1,100 m<sup>3</sup> of rubble and crushed stone for concrete and roofing material and 2,100 hectolitres of lime per month. Patterson's produced 22 cubic m of rubble a day and 1,400 hectolitres of lime a month, and Gunn's quarry which produced lime.  
1910: The Winnipeg Supply and Fuel Company, Limited owned Patterson's Fullbrook's and Irwin's quarries.  
1916: There were two companies in operation, Winnipeg Supply and Manitoba Quarries, Limited, which controlled the Gunn and Williams' interests.  
1927: The Winnipeg Supply and Fuel Company was now the only company in operation. Stone was being extracted from two quarries, one on either side of Hickey Avenue. Maximum production was 850 hectolitres of lime a day.  
1930: Winnipeg Supply still operated their 5 lime kilns. They marketed their quick lime in lump form only but part of the output was taken by Canada Gypsum and Alabastine Ltd. who hydrated it and marketed it in that form.  
1944: By 1944 Winnipeg Supply and Fuel owned all the quarryable high-grade dolomite remaining on the outskirts of the town. Three of the five kilns were in operation. Lump and crushed lime and crushed stone for flux were shipped.  
1946: The quarry produced 32,260 tonnes of dolomite, 26,490 tonnes of which were calcined. The balance was used for metallurgical flux, road ballast, etc. Four of the five kilns were in operation.  
1947: 38,220 tonnes of dolomite were produced, 29,550 tonnes of which were calcined.  
1948: The quarry operated for 365 days during the year and all five kilns were in use. Production was 38,420 tonnes of dolomite, 30,880 tonnes of which were calcined.  
1965: The dolomite reserves were depleted in 1965.  
1967: The kiln operation was supplied for a time from the company's quarry at Lillie's farm, but the kiln operation was shut down in 1967.  
1967-  
1996: The quarry has remained closed during this time  
Shipping Point: Stonewall  
Distance from mine: 30 km to Winnipeg  
Material Shipped: Lime, Stone  
Destination: Mainly Winnipeg Area  
Carrier: C.P.R.

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**NAME OF PROPERTY**      Stonewall Quarry Park  
**N.T.S. AREA** 62 I/3 NW

**FILE NO.** 868  
**REF.** DOL 2

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**NAME OF PROPERTY** Stonewall Quarry Park  
**N.T.S. AREA** 62 I/3 NW

**FILE NO.** 868  
**REF.** DOL 2

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**MAP REFERENCES**

Map 12, Industrial Minerals Producers (Index), Sc. 1:1,000,000, Manitoba Mineral Resources Division.  
Map 62 I/3, Stonewall, (Topography), Sc. 1:50,000, Surveys & Mapping Branch, Ottawa.  
Figure 4, Sketch map showing quarry properties at Stonewall, Sc. 1:9,600 - accompanying Publication by Parks (1916), Mines Branch, Ottawa.  
Map 50-1, The Inter-Lake Area, (Geology), Sc. 1:506,880 and cross-section - accompanying Publication by Baillie (1951), Manitoba Mines Branch.  
Argyle AN34  
Geological Highway Map of Manitoba (1994), Sc. 1:1,000,000, Manitoba Mineral Resources Division.  
Mineral Map of Manitoba (1994), Sc. 1:1,000,000, Manitoba Mineral Resources Division.

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**REMARKS**

The early history of the quarries is recorded in the book "Rockwood Echoes", a history of the municipality.  
The boundaries of the built-up part of the town of Stonewall virtually coincide with the extent of the quarries, sterilizing remaining reserves.  
DOL 1: previously referenced as DOL 2  
UQI: 1Q/01/36/13/01E1

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<b>Comp./Rev.</b>	NLL	KH
<b>By Date</b>	07-78	05-1996



**NAME:** LILYFIELD QUARRY NW (PIT 26)

**UQI:** 1Q/06-28-12-02E1

**EAST:** 624025

**NORTH:** 5544325

**DATE:** 1995-08-02

**OWNER:** Lesters Cartage and Construction (sold to nearby golf course)

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** No

**LOCATION:** North of Lilyfield (Rosser LGD), 06-28-12-02E1

**SIZE:** Medium

**THICKNESS:** 3.3 m

**OVERBURDEN:** 1.0 m

**USE:** Crushed stone

**REFER:** Goudge (1944); Parks (1916); Wallace (1927); Bannatyne (1988)

**M.I.C. NO:** 876

**MAPS:** 62I/3, Lilyfield AM35

**PHOTO:** 88-7-6: large coral and salt casts; 7 to 9: panoramic; 10: SE Quarry floor; 11: section; 12: smaller quarry to south

**JOINTS:**

**FORMATION:** Stony Mountain: Gunton Member

**FRACTURES:** Blocky

**FOSSILS:** Rugose corals, favositids

**MINERAL:**

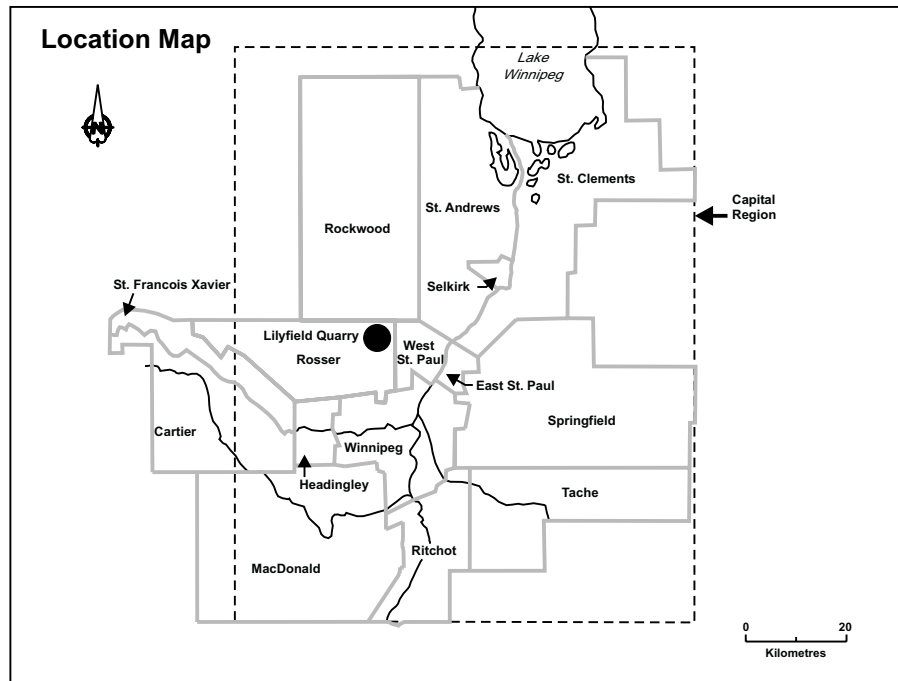
**SECTION:** STONY MOUNTAIN FORMATION:

GUNTON MEMBER (3.3 m): dolomite; large beds of thick to medium bedded wackestone to grainstone; fine to medium crystalline; mottled; abundant salt casts and hoppers (up to 3 - 4 cm); 5-6% porosity associated with salt casts; minor fossiliferous material; salt casts are abundant along certain horizons.

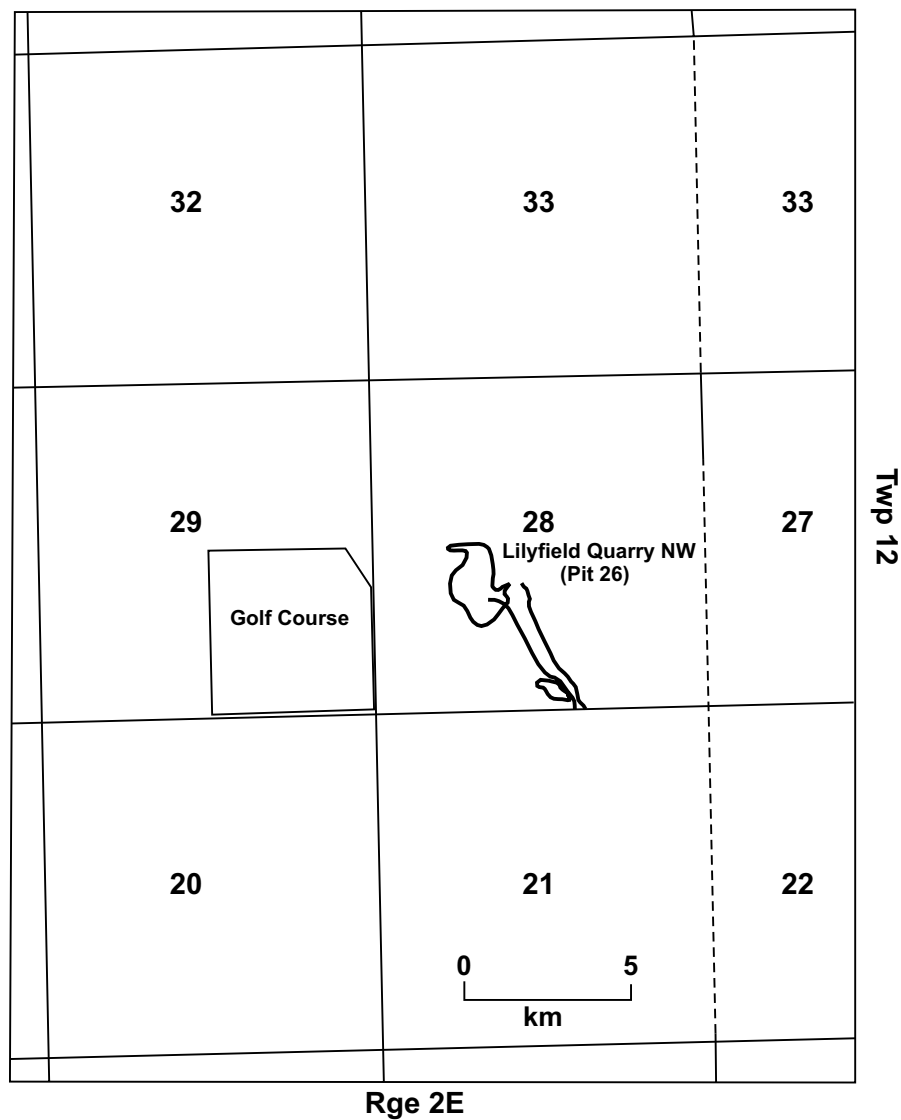
**SITE NOTES:** Sample 99-92-IN-32-1

Quarry to the SE abandoned and rubble-filled, very minor exposure. (88-7-12) - photograph.

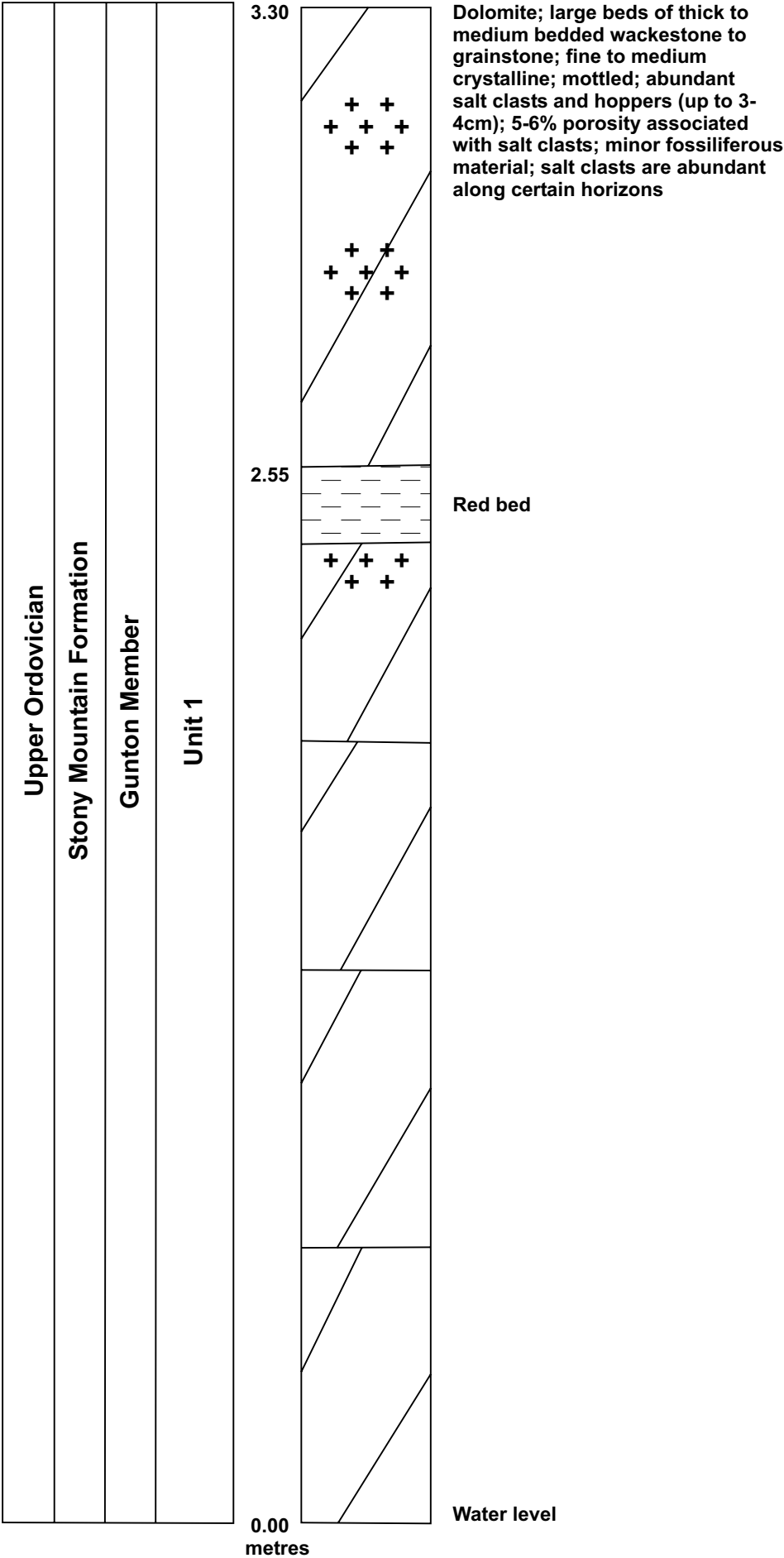
Other faces have a 20 cm thick red bed-burrowed which comes and goes. The quarry operated on the crest of a low dome is LSD 6 where overburden was only 0.6-1.5 m thick. Started before 1916. Towards the north and east the upper beds are eroded away and overburden thickens. Excavation was very irregular in shape. South pit opened in 1967. Sold to nearby golf course.



### Lilyfield Quarry NW (Pit 26)



Lilyfield Quarry NW (Pit 26)





Lilyfield 01 - 1995-08-02, Close-up of vuggy mottled dolomite of the Gunton Member of the Stony Mountain Formation in the Lilyfield North Quarry.



Lilyfield 02



Lilyfield 03



Lilyfield 04

Lilyfield 02-04 - 1995-08-02, Lilyfield North Quarry, view looking west to north.





Lilyfield 02 - 1995-08-02, Lilyfield North Quarry, view looking west.



Lilyfield 03 - 1995-08-02, Lilyfield North Quarry, view looking northwest.





Lilyfield 04 - 1995-08-02, Lilyfield North Quarry, view looking north.



Lilyfield 05 - 1995-08-02, View of quarry floor, Penitentiary Member (Stony Mountain Formation)  
Lilyfield North Quarry.





Lilyfield 06 - 1995-08-02, Caprock of Lilyfield North Quarry, Gunton Member of the Stony Mountain Formation. Karla Horseman for scale.



Lilyfield 07 - 1995-08-02, Lilyfield South Quarry, Gunton Member of the Stony Mountain Formation. View looking southeast.



MANITOBA INDUSTRY, TRADE AND MINES  
PRODUCT Dolomite

MINERAL INVENTORY FILE NO. 876  
N.T.S. AREA 62 I/3 SW

REF. STN 7

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**NAME OF PROPERTY:**

Lilyfield Quarry

**OWNER OR OPERATOR AND ADDRESS**

Lesters Cartage and Construction  
Lot 50 Garven Spr  
Winnipeg, MB

Lat. 50°02'25"

Long. 97°16'09"

Uncertainty: 50 m

50°02'09"

97°15'32"

UTM: NAD 83

624035E

5544325N

L.S. 2, 6

Sec. 28

Tp. 12

R. 2 EPM

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**OBJECT LOCATED:** 2 Dolomite quarries

**MINING DIVISION** Winnipeg

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**DESCRIPTION OF DEPOSIT**

Dolomite of the Gunton Member of the Ordovician-Stony Mountain Formation is exposed at the Lilyfield quarry. The quarry was opened on the crest of a low dome in L.S. 6, where the overburden was only 0.6-1.5 m deep. The quarry section in 1944 was comprised of 0.6 m of light brown fine-grained dolomite, 25 cm of fine-grained red argillaceous dolomite and 1.2 m of fine-grained light brown cavernous dolomite in 25 cm beds. Towards the north and the east the upper beds are eroded away and the overburden thickens.

Chemical Properties:  $\text{CaCO}_3$ , 54.32%;  $\text{MgCO}_3$ , 42.37% (Goudge, 1944).

Uses: Crushed stone and rubble.

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**HISTORY OF EXPLORATION AND DEVELOPMENT**

The Lilyfield quarries are located in L.S. 2 and 6 of Sec. 28, about 6.5 km southwest of Stony Mountain.

In 1916 Manitoba Quarries Limited held interests in the old Airdale quarry. The excavation in L.S. 6 was very irregular in shape with maximum length about 245 m and maximum width about 230 m. Before that time the property was connected by a 4 km spur with the C.P.R. but by 1916 the rails had been removed. A small jaw crusher, boilers and hoists were still on the property, but there was no production. According to Wallace and Greer (1927) considerable stone was removed from the quarry but it seems to have been prior to 1916. They also indicated that immense quantities of stone were available beneath a light stripping. In 1962 they had a crushing, washing and screening plant at the quarry. That year the company began stripping in L.S. 2, about 400 m to the southeast.

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**NAME OF PROPERTY**      Lilyfield Quarry  
                                 **N.T.S. AREA** 62 I/3 SW

**FILE NO.** 876  
**REF.** STN 7

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#### **HISTORY OF EXPLORATION AND DEVELOPMENT (continued)**

In 1967 the new pit was 300 m by 200 m with a 1.8 m face and 0.9 m of overburden. The portable crusher was at the new pit, but quarrying was being carried out in the northwest corner of the old pit, which now measured 335 m by 275 m (maximum). It varied from 1.7 m to 2.5 m deep. Overburden was now 1.2 m deep.

In 1977, the quarry had been abandoned.

Between 1978 and 1995 the quarry changed hand from Winnipeg Supply & Fuel Company Ltd. to Lesters Cartage and Construction and goes by the name Lilyfield Quarries NW Pit (26). In 1995 the quarry was in operation although between 1980 and 1994 it was not in operation.

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Associated minerals or products of value

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#### **HISTORY OF PRODUCTION**

There was considerable production of crushed stone from the Airdale quarry prior to 1916. Around 1961 The Winnipeg Supply and Fuel Company Limited began quarrying operations on the property. A new pit 400 m to the southeast was opened in 1962 but had been abandoned by 1967. Work was continuing to the west of the old pit.

Shipping Point: Lilyfield Quarry

Material Shipped: Crushed Stone

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#### **REFERENCES**

Davies, J.F., Bannatyne, B.B., Barry, G.S. and McCabe, H.R.  
1962:

Geology and Mineral Resources of Manitoba; Manitoba Mines Branch, p. 170.  
Goudge, M.F.

1944:

Limestone of Canada, Their Occurrence and Characteristics, Part V, Western Canada; No. 811, Mines Branch, Ottawa, pp.32-33.

Industrial Minerals Geologist's File

Manitoba Mineral Resources Division.

Parks, W.A.

1916:

Report on the Building and Ornamental Stones of Canada, Volume IV; Mines Branch, Ottawa, Report No. 388, pp.73-74.

Wallace, R.C. and Greer, L.

1927:

The Non-Metallic Mineral Resources of Manitoba; Industrial Development Board of Manitoba, p. 49.

Bamburak, James, Bezys, Ruth

1995

Capital Region Study, Quarry Description 1995

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<b>NAME OF PROPERTY</b>	Lilyfield Quarry	<b>FILE NO.</b> 876
	<b>N.T.S. AREA</b> 62 I/3 SW	<b>REF.</b> STN 7

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**MAP REFERENCES**

Map 62 I/3, Stonewall, (Topography), Sc. 1:50,000, Surveys & Mapping Branch, Ottawa.  
Map 12, Industrial Minerals Producers (Index), Sc. 1:1,000,000, Manitoba Mineral Resources Division.  
Geological Highway Map of Manitoba (1994), Sc. 1: 1,000,000, Manitoba Mineral Resources Division.  
Mineral Map of Manitoba (1980), Sc. 1:1,000,000, Manitoba Mineral Resources Division.

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**REMARKS**

Very little information was available on the quarry at this time.  
STN 7: previously referenced as DOL 10  
UQI: 1Q/06-28-12-02E2

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<b>Comp./Rev.</b>	NLL	KH
<b>By Date</b>	08-78	05-1996

**NAME:** ROSSER PIT

**UQI:** 1Q/08-04-12-02E1

**EAST:** 625300

**NORTH:** 5537575

**DATE:** 2000-06-29

**OWNER:** Private owner

**INSPECTOR:** R.K.Bezys, J.D.Bamburak

**OPERATING:** No

**LOCATION:** 08-04-12-02E1

**SIZE:** small: 40 x 50 m

**THICKNESS:** 2.5 m

**OVERBURDEN:** 1-2 m

**USE:** not known

**REFER:** Ed Dobrzanski

**M.I.C. NO:**

**MAPS:** 62H/14, Bergen AL35

**PHOTO:** photos: 99-1, no. 11,12

**JOINTS:** 150°, 24°E; 045°, 055°

**FORMATION:** Stony Mountain Fm, Gunton Member

**FRACTURES:**

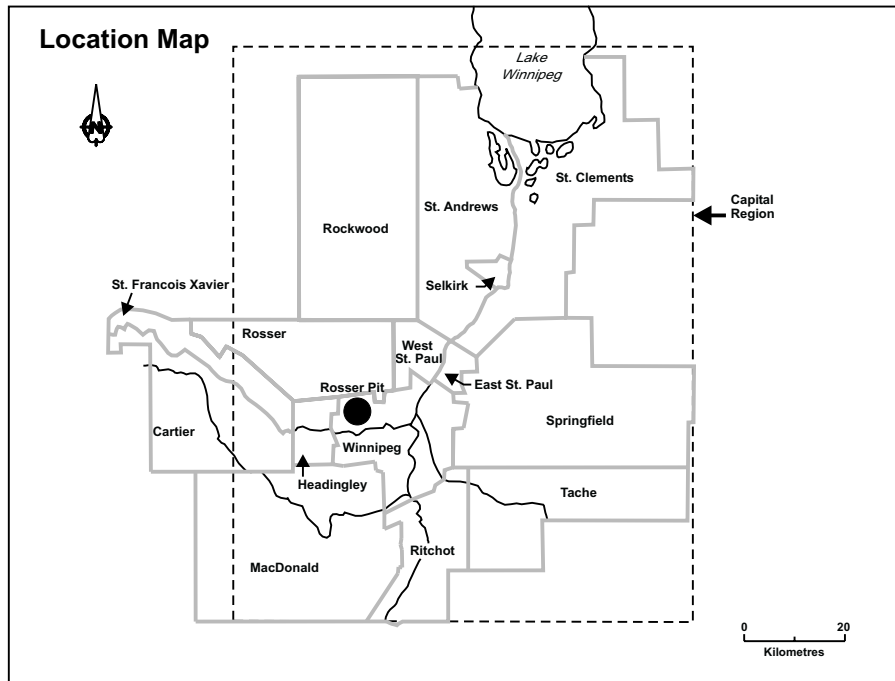
**FOSSILS:**

**MINERAL:**

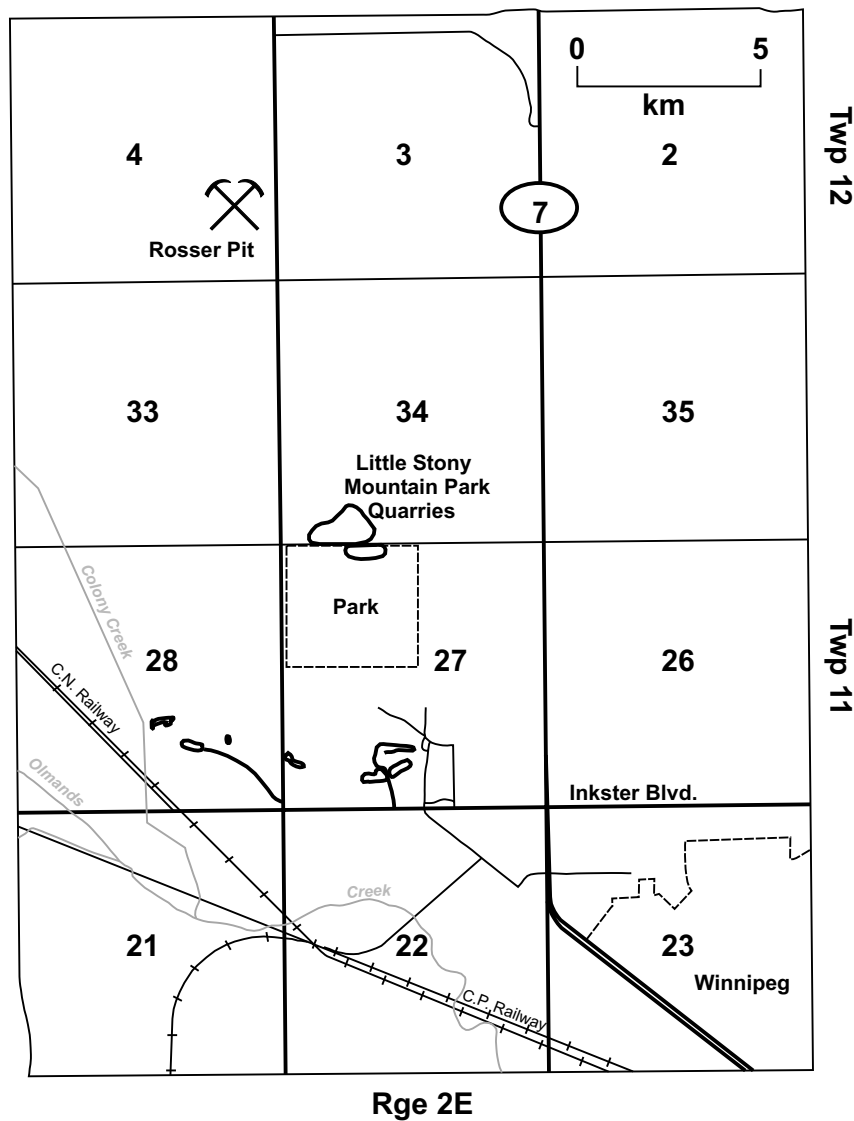
**SECTION:** STONY MOUNTAIN FM: GUNTON MEMBER (2.5 m) Dolomite: buff wackestone; fine crystalline; thin to thick bedded; Penitentiary-like beds at base.

**SITE NOTES:** Old pit to the east of exposed bedrock, undulating surface

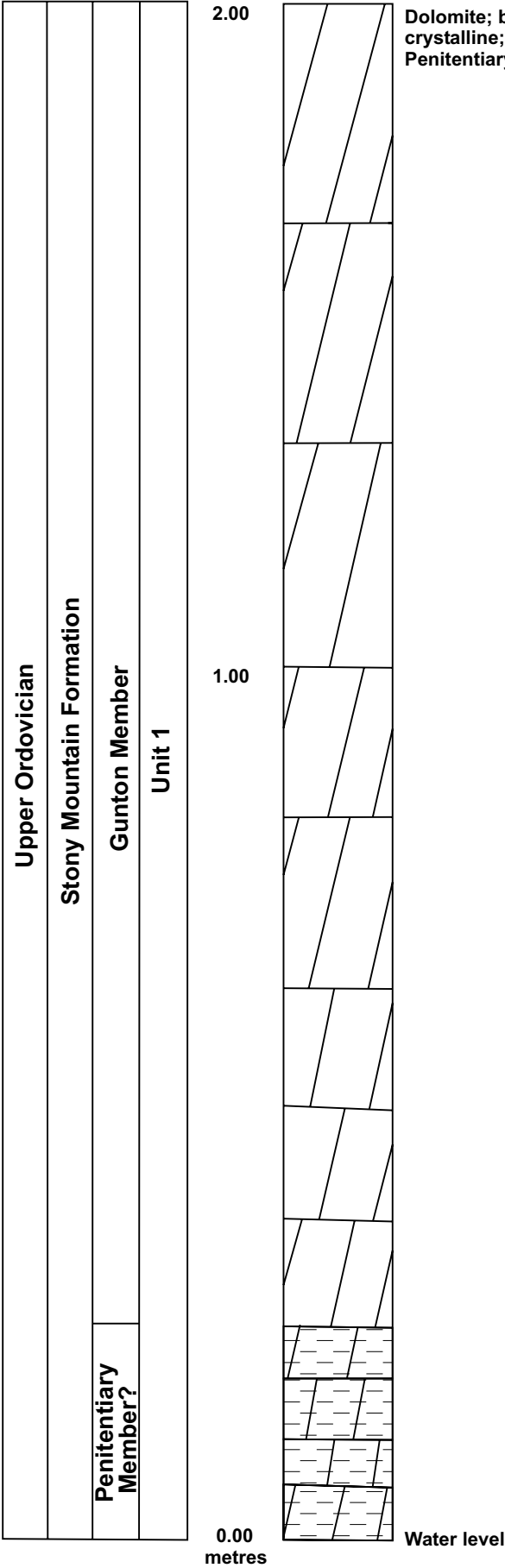




### Rosser Pit



Rosser Pit



Dolomite; buff wackestone; fine crystalline; thin to thick bedded; Penitentiary-like beds at the base



Rosser 01 - 1999-04-26, Rosser Pit, pavement is Gunton Member of the Stony Mountain Formation, looking southwest.



Rosser 02 - 1999-04-26, Rosser Pit, blocks of Penitentiary Member of the Stony Mountain Formation, looking northeast.

**NAME:** LITTLE STONY MOUNTAIN PARK Q

**UQI:** 1Q/14-27-11-2E1

**EAST:** 625972

**NORTH:** 5535486

**DATE:** 2000-06-28

**OWNER:** City of Winnipeg

**INSPECTOR:** R.K. Bezys, J.D. Bamburak

**OPERATING:** No

**LOCATION:** In City of Winnipeg, north of airport

**SIZE:** medium

**THICKNESS:** 1.2 m

**OVERBURDEN:** 3 m

**USE:** crushed stone

**REFER:**

**M.I.C. NO:** 866

**MAPS:** 62H/14, Bergen AL35

**PHOTO:** slides: 12-16; pictures: south: 21-23; north: 24, 25

**JOINTS:**

**FORMATION:** Stony Mountain, Gunton Member

**FRACTURES:**

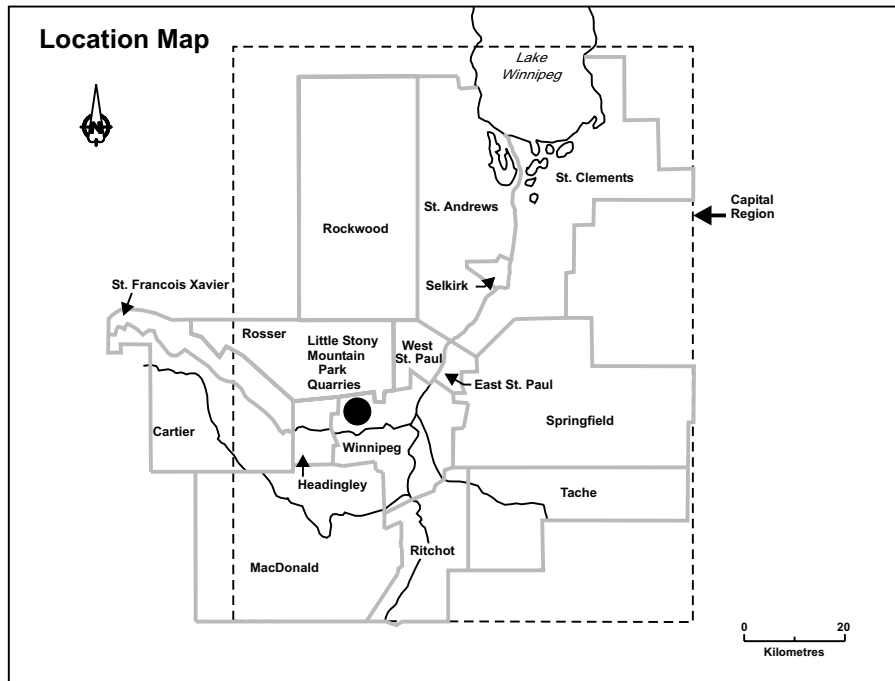
**FOSSILS:**

**MINERAL:**

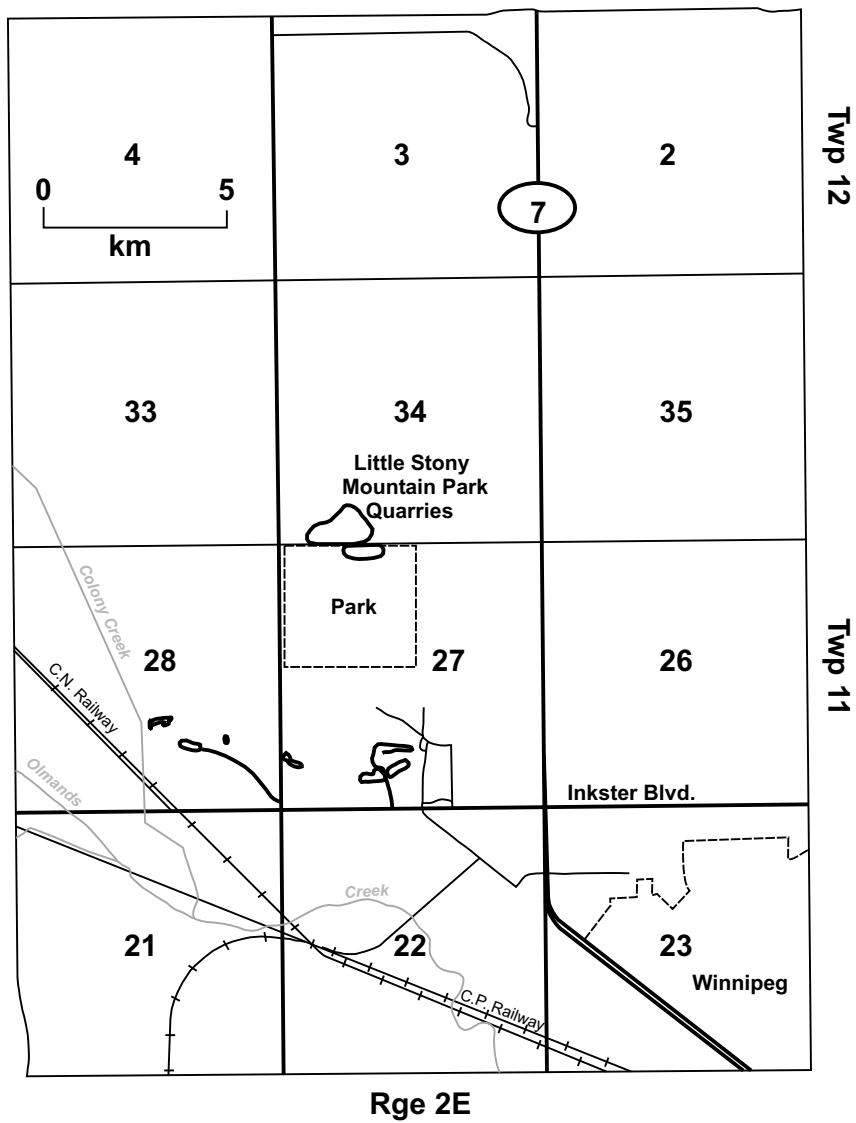
**SECTION:** Dolomite: tan buff wackestone; medium to thick bedded; fine to medium crystalline; mottled; 5-6% porosity; numerous fractures; very broken rock; very old and overgrown quarry.

**SITE NOTES:** Little Stony Mountain is a low ridge running north-south. City of Winnipeg Quarry on east side, Egan's Quarry a short distance south. Started in 1850 with burning of lime. Shut down in 1905 (moved to Stony Mountain).



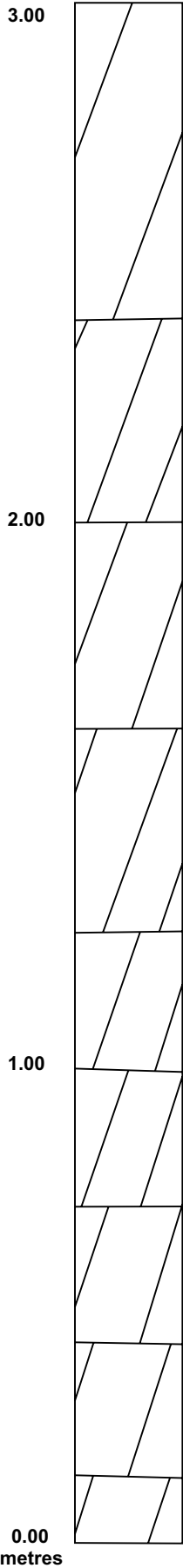


### Little Stony Mountain Park Quarries



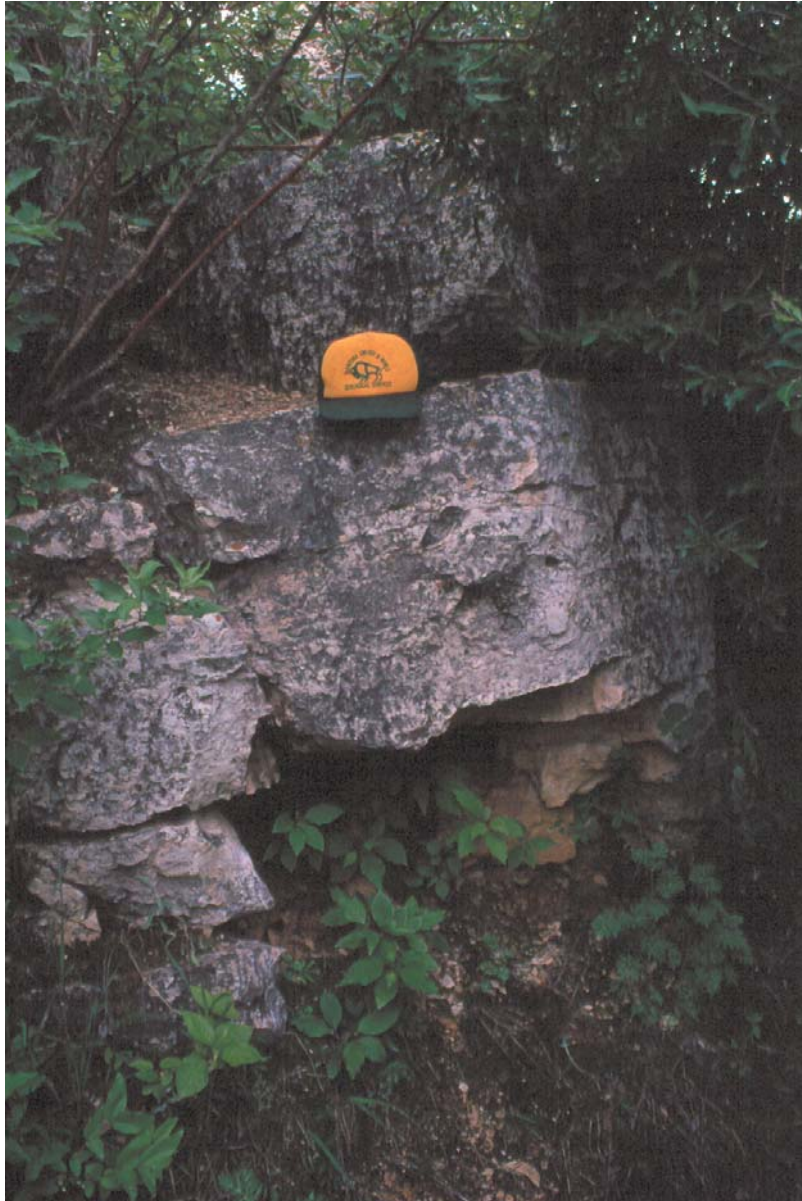
Little Stony Mountain  
Park Quarries  
(South Quarry)

Upper Ordovician
Stony Mountain Formation
Gunton Member
Unit 1



Dolomite; tan buff wackestone;  
medium to thick bedded; fine to  
medium crystalline; mottled;  
5-6% porosity; numerous fractures;  
very broken rock; very overgrown  
quarry

Water level



Little Mountain 01 - 2000-06-28, Little Mountain Quarry Park (Egan Quarry) Gunton Member of the Stony Mountain Formation (caprock). View of south wall at west end of quarry.



Little Mountain 02 - 2000-06-28, Little Mountain Quarry Park (Egan Quarry) amphitheater. Slabs of Gunton Member from the Stony Mountain Formation. View towards the north.



Little Mountain 03



Little Mountain 04



Little Mountain 05

Little Mountain 03 to 05 - 2000-06-28, Little Mountain Quarry Park (former City of Winnipeg Quarry) looking northwest, north and northeast, grassed in bottom of quarry.





Little Mountain 03 - 2000-06-28, Little Mountain Quarry Park (former City of Winnipeg Quarry) looking northwest grassed in bottom of quarry.



Little Mountain 04 - 2000-06-28, Little Mountain Quarry Park (former City of Winnipeg Quarry) looking north, grassed in bottom of quarry.



Little Mountain 05 - 2000-06-28, Little Mountain Quarry Park (former City of Winnipeg Quarry) looking northeast, grassed in bottom of quarry.

PRODUCT Dolomite

N.T.S. AREA 62 H/14 NE

REF. STN 1

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**NAME OF PROPERTY:****OWNER OR OPERATOR AND ADDRESS**

Little Stony Mountain (Little Mountain)

Lat. 49°57'40"

Long. 97°14'35"

Uncertainty: 50 m

UTM: NAD 83

625972E

5535486N

SW1/4

Sec. 34

Tp. 11

R. 2 WPM

NW1/4

Sec. 26

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**OBJECT LOCATED:** Dolomite Quarries (2) **MINING DIVISION** Winnipeg

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**DESCRIPTION OF DEPOSIT**

Little Stony Mountain is a low ridge running north-south. The City of Winnipeg quarry is on the eastern side of the ridge, and Egan's quarry is a short distance farther south. The city quarry was sunk through 0.3-2.5 m of overburden, 1.5-5 m of finely crystalline dolomite of the Gunton Member and 1.2 m of yellow mottled and argillaceous dolomite of the Penitentiary Member of the Ordovician Stony Mountain Formation.

Chemical Properties:  $\text{CaCO}_3$ : 49.09-55.87%,  $\text{MgCO}_3$ : 45.06-40.24%. For chemical analyses, see Goudge (1944) and Wells (1905).

Uses: Crushed stone for street paving, curb stones, lime, and dimension stone.

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**HISTORY OF EXPLORATION AND DEVELOPMENT**

Little Stony Mountain quarry is located in SW1/4 Sec. 34, Tp. 11, R. 2 E within the perimeter highway surrounding Winnipeg. Egan's quarry is in the NW1/4 of Sec. 26, across the road allowance to the south.

- 1850: Around 1850 burning of lime was undertaken on a fairly large scale. A railway spur was connected from Moore siding on the Canadian Pacific Railway (about 1.5 km to the southwest) to the quarry site.
- 1855: Production of lime ceased about this year.
- 1896: The City of Winnipeg purchased 32 hectares of land from Lord Strathcona.
- 1898: Production of crushed stone for road building and of stone curbing was begun. The curbstones were cut by hand in the quarry and, like the crushed stone, were hauled to the loading site by horsedrawn wagons running on a narrow gauge track.
- 1900: Two quarries were in option; the City quarry and Egan's quarry (a short distance further south).  
The City quarry produced dimension and foundation stone as well as crushed stone. It was 90 m long and 45 m wide.

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<b>NAME OF PROPERTY</b>	Little Stony Mountain <b>N.T.S. AREA</b> 62 H/14 SE	<b>FILE NO.</b> 866 <b>REF.</b> STN 1
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Associated minerals or products of value  
  
Dolomite.

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#### **HISTORY OF EXPLORATION AND DEVELOPMENT (continued)**

- 1904: This was the peak production year for the City quarry. It was the last year of operation of Egan's quarry by the Little Stony Mountain Quarry Co.
- 1905: The City quarry was now 450 m square and the increased thickness of the overburden as quarry size increased resulted in operations becoming uneconomic. A quarry site was purchased at Stony Mountain. (See M.I. card 62 I/3, STN 1). The entire plant and most of the town was dismantled, transported to Stony Mountain during the winter.

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#### **HISTORY OF PRODUCTION**

- 1850 - from about 1850 to 1885 burning of lime was undertaken on a fairly large scale.
- 1898 - Production of crushed stone for road building and of curbstones was begun by the city.
- 1904 - This was the peak production year for the City Quarry.  
It was the last year Little Stony Mountain Quarry Company operated Egan's quarry.
- 1905 - Operations ceased and the plant was moved to Stony Mountain.

Shipping Point: Little Stony Mountain  
Material Shipped: Crushed stone  
Destination: Winnipeg  
Distance from mine: about 9 km  
Carrier: Rail

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#### **REFERENCES**

- Baillie, A.D.  
1952:  
Ordovician Geology of Lake Winnipeg and Adjacent Areas; Manitoba Mines Branch, Publication 5106, pp. 18-21.
- Dowling, D.B. (and Tyrrell)  
1900:  
Report on the Geology of the West Shore and Islands of Lake Winnipeg; Geological Survey of Canada, Annual Report 1898, pp. 90F-92F.



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<b>NAME OF PROPERTY</b>	Little Stony Mountain <b>N.T.S. AREA</b> 62 H/14 SE	<b>FILE NO.</b> 866 <b>REF.</b> STN 1
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#### REFERENCES (continued)

Goudge, M.F.

1944:

Limestones of Canada, Their Occurrence and Characteristics, Part V, Western Canada; No. 811, Mines Branch, Ottawa, pp.32-33.

Industrial Minerals Geologist's file, Manitoba Mineral Resources Division. Parks, W.A.

1916:

Report of the Building and Ornamental Stones of Canada, Vol. IV; Mines Branch, Ottawa, Report No. 388, pp. 70-72.

Wallace, R.C. and Greer, L.

1927:

The Non-Metallic Mineral Resources of Manitoba; Industrial Development Board of Manitoba pp. 48-49. Wells, J.W.

1905:

Preliminary Report on the Limestones and the Lime Industry of Manitoba; Mines Branch, Ottawa, Report No. 7, pp. 47-48.

Smith, D.L.

1963:

A Lithologic Study of the Stony Mountain and Stonewall Formations in southern Manitoba; unpublished M.Sc. thesis, University of Manitoba.

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#### MAP REFERENCES

Map 12, Industrial Minerals Producers (Index), Sc. 1: 1,000,000, Manitoba Mineral Resource Division.

Map 51-6, Lake Winnipeg and Adjacent Areas, (Geology), Sc. 1: 506,980 - accompanying Publication 51-6 by Baillie (1952), Manitoba Mines Branch. Figure 4, Ordovician Stratigraphic Cross Section - accompanying Publication 51-6 by Baillie (1952), Manitoba Mines Branch.

Map 62 H/14, east half, Winnipeg (Topography), Sc. 1:50,000, Surveys & Mapping Branch, Ottawa.

Plates I and II (p. 9 and 10), Location Map and Detail Map, Sc. 1:253,440 and 1:47,520 - accompanying M.Sc. Thesis on Stony Mountain and Stonewall formations by D.L. Smith, 1963, University of Manitoba.

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#### REMARKS

The Egan quarry is in the NW1/4 Sec. 27, Tp. 11, Rge. 2 EPM. It is now included in the Little Mountain park site.

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<b>Comp./Rev.</b>	NLL
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<b>By Date</b>	07-78
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**NAME:** GARSON QUARRIES

**UQI:** 1Q/13-03-13-06E1

**EAST:** 664600

**NORTH:** 5549425

**DATE:** 1996-01-08

**OWNER:** Gillis Quarry

**INSPECTOR:** R.K Bezys, K. Horsman

**OPERATING:** Yes

**LOCATION:** Garson; 13-03-13-06E1

**SIZE:** Very large

**THICKNESS:** 3.0 - 5.0 m

**OVERBURDEN:** 0.5 - 2.0 m

**USE:** Dimension stone

**REFER:** Bannatyne (1975, 1988)

**M.I.C. NO:** 965

**MAPS:** 62I/2, Supton AM39

**PHOTO:** Roll 10, photo 14, 15: face

**JOINTS:**

**FORMATION:** Red River: Selkirk Member, "Tyndall Stone"

**FRACTURES:**

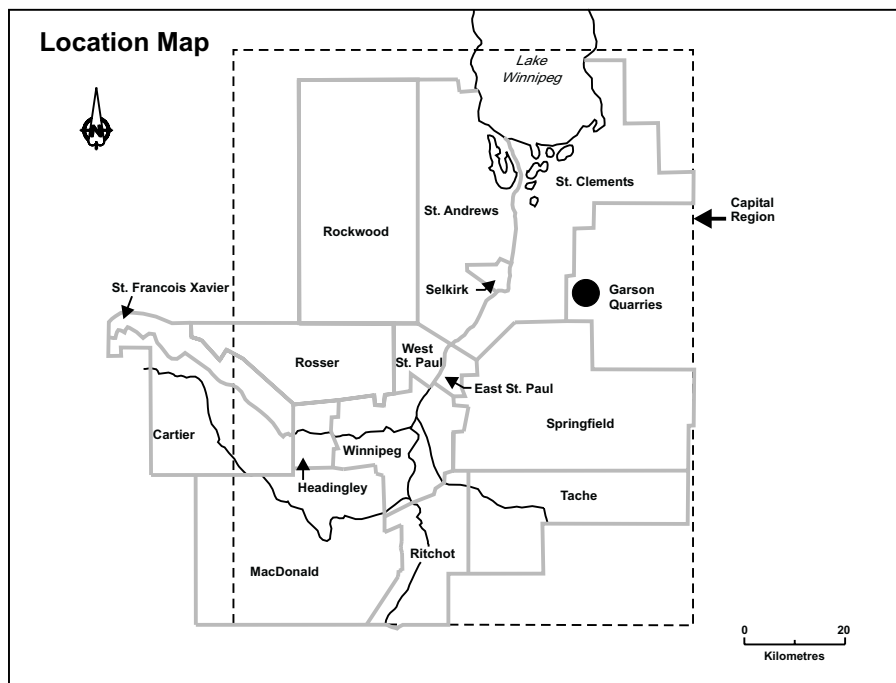
**FOSSILS:** Very abundant; solitary and colonial corals, gastropods, orthoconic nautiloids, encrust

**MINERAL:**

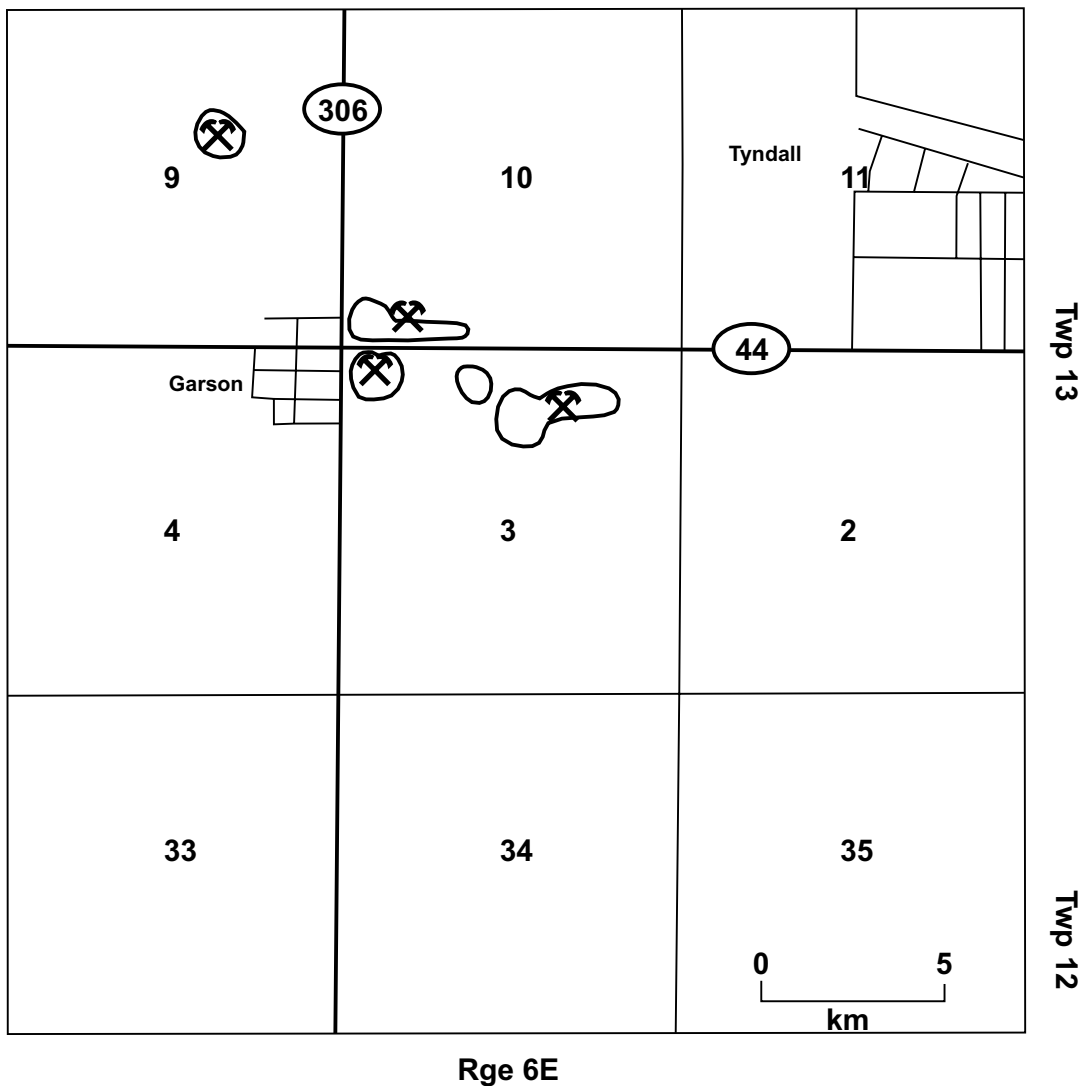
**SECTION:** RED RIVER FORMATION:

SELKIRK MEMBER (3.5 m): dolomitic limestone and limestone; wackestone; light brown to tan to grey; fine to medium grained; burrow mottled; granular material; fine grained brachiopods and crinoids; thick to massive bedded; very regular contacts; rare or non existant jointing; porosity tight and pinpoint; less than 2%.

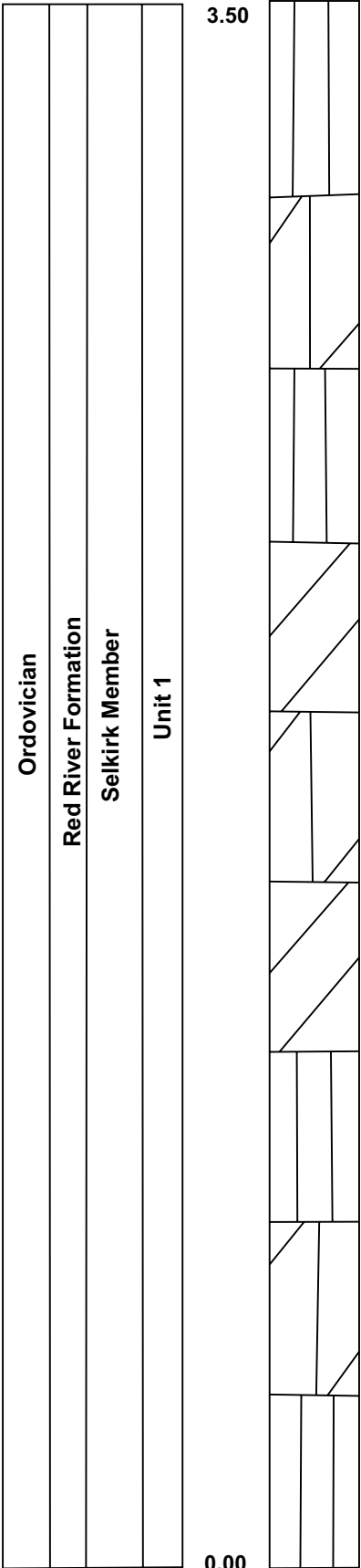
**SITE NOTES:**



## Garson Quarries



Garson Quarries



Dolomitic limestone and limestone; wackestone; light brown to tan to grey; fine to medium grained; burrow mottled; granular material; brachiopods and crinoids; thick to massive bedded; very regular contacts; rare or non existent jointing; porosity tight and pinpoint, <2%





Garson 01: Old cutting area, now abandoned. Selkirk Member, Red River Formation.



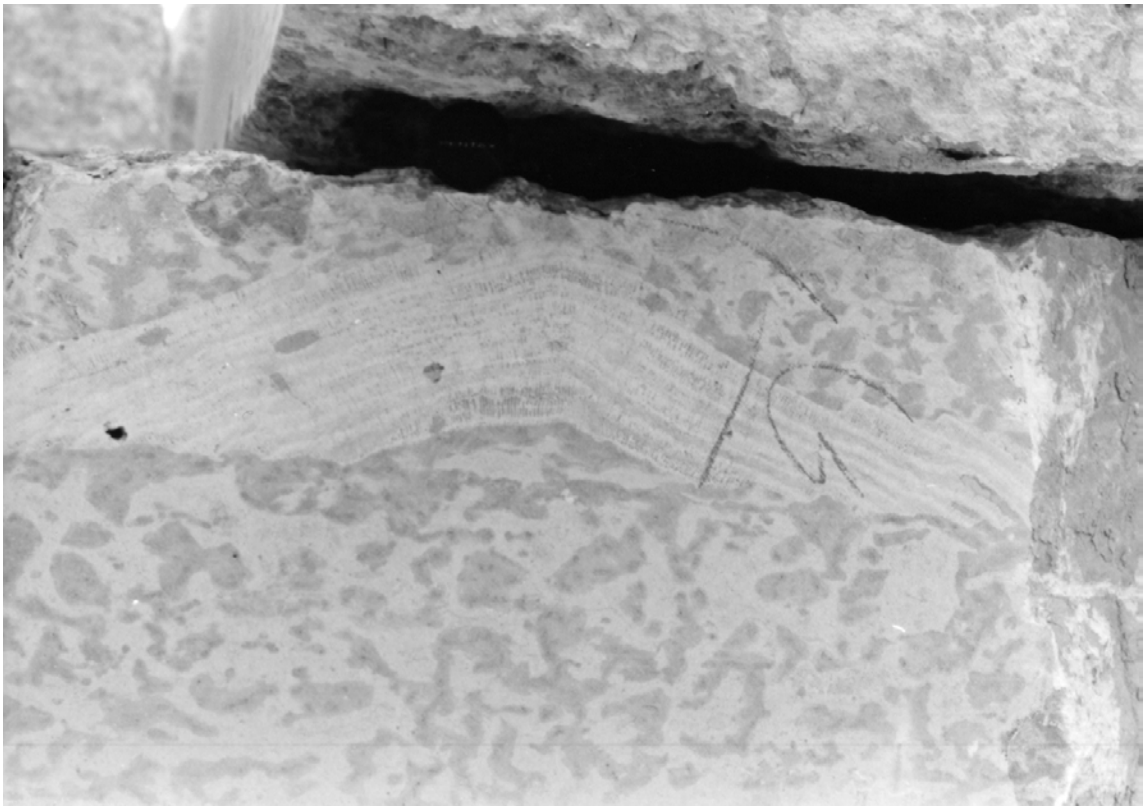
Garson 02: Large blocks of Selkirk Member, Red River Formation, ready for shipping.



Garson 03: Old kiln at Garson Quarry (made of Selkirk Member, Red River Formation rocks).



Garson 04: Abandoned quarry area. The town of Garson (and hotel) is directly in the background.



Garson 05: Close-up of cut block of a corallgal fossil and burrow mottling (Selkirk Member, Red River Formation).



Garson 06: Large slabs of Selkirk Member (Red River Formation) ready for shipping.

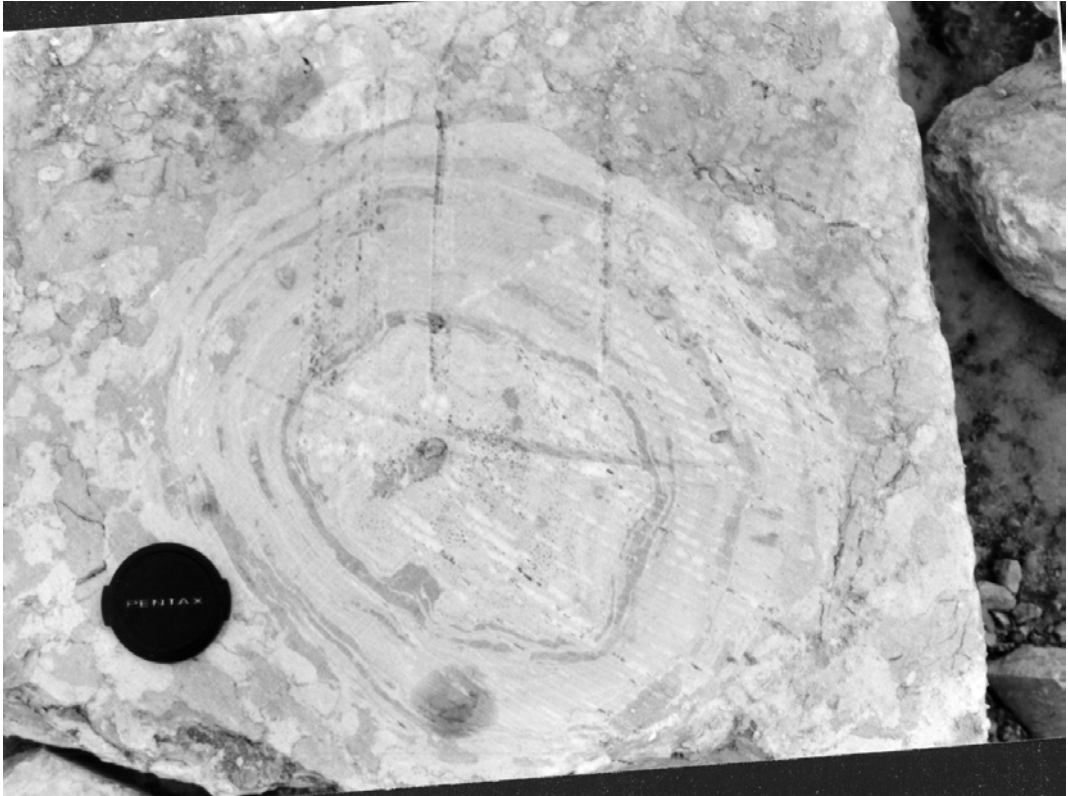




Garson 07: Abandoned cutting area.



Garson 08: Large slabs of Tyndall Stone ready to be polished or to be shipped rough.



Garson 09: Planar section of a corallgal fossil (Selkirk Member, Red River Formation).



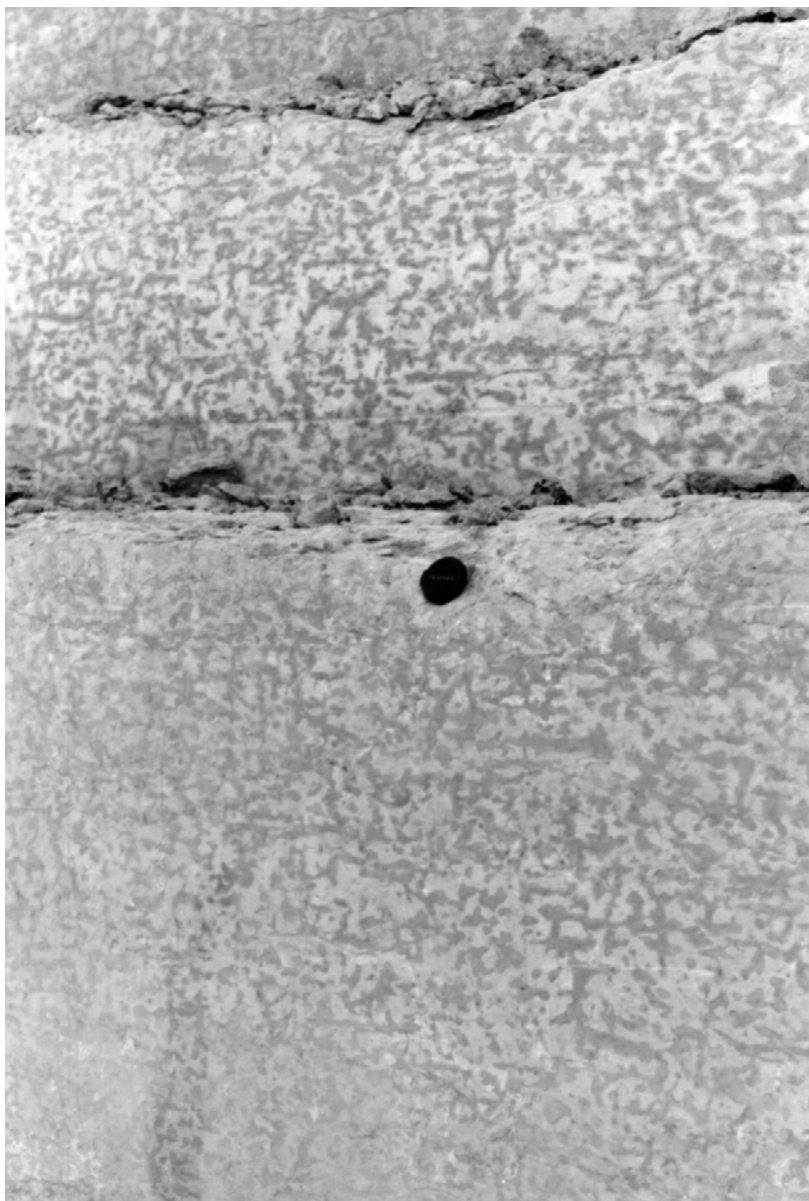
Garson 10: Abandoned cutting area.



Garson 11: Close-up of an abandoned cutting area.



Garson 12: Panoramic view of a recently abandoned quarry area.



Garson 13: Close-up of burrow mottled dolomitic limestone (lens cap for scale).





Garson 14: A recently worked area of the quarry with a large cutting saw to the left.



Garson 15: Large cutting saw.



Garson 17



Garson 16



Garson 19

Garson 17, 16 & 19: Panoramic view of a recently cut area with a large saw in the foreground.



Garson 17: Panoramic view of a recently cut area with a large saw in the foreground. View towards the south.



Garson 16: Panoramic view of a recently cut area. View towards the south-southeast.



Garson 19: Panoramic view of a recently cut area. View towards the southeast.





Garson 18: Large blocks ready for shipping.



Garson 20: Close-up of a cut face. Karla Horseman for scale.





Garson 22: Sump pit.



Garson 23: Active cutting area.



Garson 25: Close-up of cutting area.

PRODUCT Dolomite

N.T.S. AREA 62 H/14 NE

REF. STN 1

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**NAME OF PROPERTY:**Gillis Quarry  
(Garson Quarry)**OWNER OR OPERATOR AND ADDRESS**Gillis Quarries Limited  
1348 Spruce Street  
Winnipeg, MB R3E 2V7

Lat. 50°04'32"

Long. 96°43'09"

Uncertainty: 50 m

UTM: NAD 83

664600E

5549425N

L.S. 13

Sec. 4

Tp. 13

R. 6 EPM

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**OBJECT LOCATED:** Quarry**MINING DIVISION** Winnipeg

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**DESCRIPTION OF DEPOSIT**

The quarry is situated on a low anticlinal ridge about 0.8 km wide and 4.8 km long that trends northwest-southeast. The covering of soil varies from 2 to 4 m along the axis and deepens on both flanks. Tyndall Stone is a mottled dolomitic limestone and at this locality is in the lower half of the Selkirk Member of the Ordovician Red River Formation. The rock is composed of a matrix of light buff limestone in which occur tubular and interconnected mottled areas of brownish dolomitic limestone forming one third of the rock and distributed uniformly throughout it. The upper 2.5 to 5 m is buff in colour, the next 4 m has a grey to bluish cast, while the remaining 10 m (unquarried) is lighter coloured.

Large fossils, usually white are scattered through the rock, but the stone can be cut to avoid these. The stone occurs in beds caused by stylolitization of 0.5 to 1.8 m thick. The beds are lettered downward from 'A' to 'K'. Increasing amounts of chert nodules have been found below the 'I' bed.

Chemical Properties: Analyses of individual, quarried beds range from 83.21 to 89.26%  $\text{CaCO}_3$  and 9.43%  $\text{MgCO}_3$ . See Goudge (1944)

Physical Properties: For physical properties relating to the use of the stone for building purposes see Parks (1916).

Uses: Building stone, monumental and ornamental stone, flagstone, crushed stone, lime (pre-1942); also used in sulphite pulp industry.

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**HISTORY OF EXPLORATION AND DEVELOPMENT**

Gillis quarry is located on the south side of Provincial Highway 44 in L.S. 13, Sec. 3, at Garson, 48 km northeast of Winnipeg.

1898: John Bunn opened a limestone quarry on privately held land.

1905: The quarry was owned and operated by John Gunn and Sons, Winnipeg. Channelling machines, steam-and-horse-powered derricks were being used. Dimension stone, rubble, crushed stone for lime were being produced.

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**NAME OF PROPERTY** Gillis Quarry  
**N.T.S. AREA** 62 I/2 SW

**FILE NO.** 965  
**REF.** STN 1

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**HISTORY OF EXPLORATION AND DEVELOPMENT (continued)**

The lime was produced in two draw kilns. Tram cars carried the crushed stone from the quarry to the top of the draw kilns, while the lime was drawn from the bottom and carried by wheel-barrows to box cars on the spur line.

1916: W. Murray was operating the quarry which he leased from John Gunn (Parks, 1916). After the overburden and upper shattered beds had been removed, a channel cut was run across the quarry about 1.5 m back from the face. Two cross channels were made at each end of the strip and the key block removed. The strip was raised by plug and feathers, then cut into lengths of 2 to 4.5 m by plug and feathers.

1925: By 1925 Gillis Quarries Limited (incorporated in 1922) was shipping 3 to 4 cars of stone a week to their dressing plant in Winnipeg. They produced lime and shipped rubble as well.

1933: The overburden was removed, under contract, by dragline excavator. Steam channelling machines cut sections of the floor 9 to 12 m square and divided it into strips about 1.5 m wide. The 2 or 3 beds, included in each cut, were raised by wedges driven into horizontally drilled holes. Then, the beds were cut into mill blocks by plug and feathers. Wooden guy derricks were employed for raising blocks from the quarry and for stockpiling (Goudge, 1933 p. 109-112).

1944: The quarry measured about 120 m square and was 7.3 m deep exclusive of overburden. The kiln hadn't been operating since 1942 and the company was dressing only stockpiled stone. During this period, stone was shipped also to dressing plants in other cities.

1948: Expansion of the pit to the west was begun. The steam channelling machines were still being used. 4200 tonnes of building stone, 960 tonnes of crushed stone, and monumental, ornamental and flagstone were produced. The stone was trucked to the dressing plant in Winnipeg for cutting and polishing.

1965: After peeling back the overburden with bulldozers and front end loaders, steam channelling was done for beds 1.8 m thick. Beds less than 1 m thick were cut with a new diamond-toothed circular saw (blade 244 cm in diameter); strips 1.8 m wide by 24 m long were cut at the rate of 56 cm a minute. The stone was then split into 5 to 7 tonne blocks for shipping to the dressing plant in Winnipeg.

1969: Construction of a dressing plant at the quarry site was begun. It went into production in 1970.

1972: The quarry was 400 m long and 285 m wide.

1973: The quarrying operations were moved to the old Tyndall Quarry Company Limited pit (See: 62I/2 STN 3).

1976: The dressing plant was expanded and all finishing operations were carried out in Garson.

1978: The average yearly production was 22 500 tonnes. Since, 1973, the only site being quarried was in L.S. 15, at the western end of the old Tyndall quarry. Some blocks stockpiled for many years were also being used.



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**NAME OF PROPERTY** Gillis Quarry  
**N.T.S. AREA** 62 I/2 SW

**FILE NO.** 965  
**REF.** STN 1

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Associated minerals or products of value

Lime and crushed stone.

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#### **HISTORY OF PRODUCTION**

1898: John Gunn opened a limestone quarry.  
1905: Dimension stone, rubble and crushed stone, for lime were produced by John Gunn & Sons, Winnipeg.  
1916: W. Murray operated the quarry.  
1925: Gillis Quarries Limited operated the quarry. They were shipping 3-4 cars of stone a week to their dressing plant in Winnipeg and burning lime. They shipped 50 cars of rubble.  
1942: Production of lime ceased.  
1944: The company was dressing only stockpiled stone.  
1948: 4200 tonnes of building stone, 920 tonnes of crushed stone and monumental and flagstone were produced.  
1953: Average yearly production was 4500 tonnes.  
1965: New diamond saw acquired.  
1969? The company acquired the assets of Garson Limestone Co. Ltd. including the original diamond saw.  
1976: All cutting and finishing work was done at the Garson plant.  
1978: Average annual production was 22 500 tonnes.

Shipping Point: Garson, Manitoba

Material Shipped: Tyndall Stone

Destination: Winnipeg (Prior to 1972). Marketed mainly in Manitoba, but has been widely used across Canada, in the past.

Distance from mine: about 48 km

Carrier: C.P. Rail, truck

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#### **REFERENCES**

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<b>NAME OF PROPERTY</b>	Gillis Quarry <b>N.T.S. AREA</b> 62 I/2 SW	<b>FILE NO.</b> 965 <b>REF.</b> STN 1
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<b>NAME OF PROPERTY</b>	Gillis Quarry	<b>FILE NO.</b> 965
	<b>N.T.S. AREA</b> 62 I/2 SW	<b>REF.</b> STN 1

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#### MAP REFERENCES

Cross-section, The Quarry Beds at Garson, Fig. 1: The Non-Metallic Mineral Resources of Manitoba, Wallace, R.C. and Greer, L., p. 11.  
Map (Geol.), 1:1 267 200 - Accom. Rept. No. 811 by M.F. Goudge (1944); Mines Br., Canada.  
Map 12, Industrial Minerals Producers (Index), 1: 1 000 000; Man. MRD.  
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#### REMARKS

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<b>Comp./Rev.</b>	NLL
<b>By Date</b>	06-78

**NAME:** HADIKEN QUARRY

**UQI:** 1Q/14-17-14-05E

**EAST:** 658200

**NORTH:** 5562400

**DATE:** 1996-01-08

**OWNER:** Hadiken/Chabeau

**INSPECTOR:** R.K. Bezys, K. Horsman

**OPERATING:** Yes

**LOCATION:** East Selkirk; 14-17-14-05E1

**SIZE:** Medium to large

**THICKNESS:** 3.0 - 4.0 m

**OVERBURDEN:** 1.5 - 2.0 m

**USE:** Crushed stone

**REFER:** Bannatyne (1988)

**M.I.C. NO:**

**MAPS:** 62I/2, Peguis AO38

**PHOTO:** Roll 10, photo 1-3, 4: receptaculites; 5: sump pump and section; 6 to 8: overburden; 9 to 11: panoramic; 12 to 13: east face

**JOINTS:** Not well defined

**FORMATION:** Red River: Selkirk Member

**FRACTURES:**

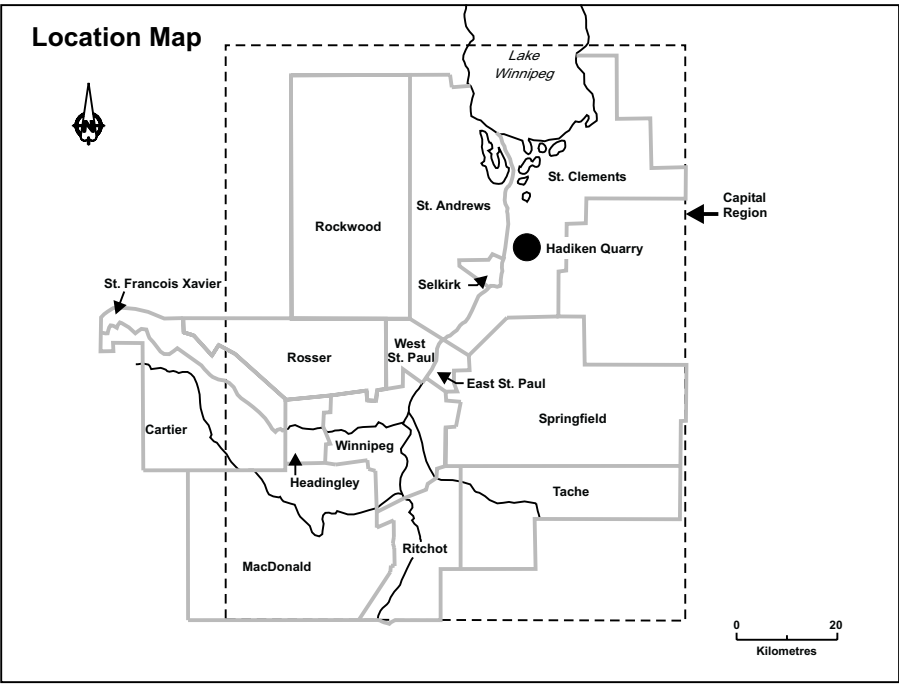
**FOSSILS:** Receptaculites, colonial corals, orthoconic nautiloids, rugose corals, burrow mottled

**MINERAL:** Chert

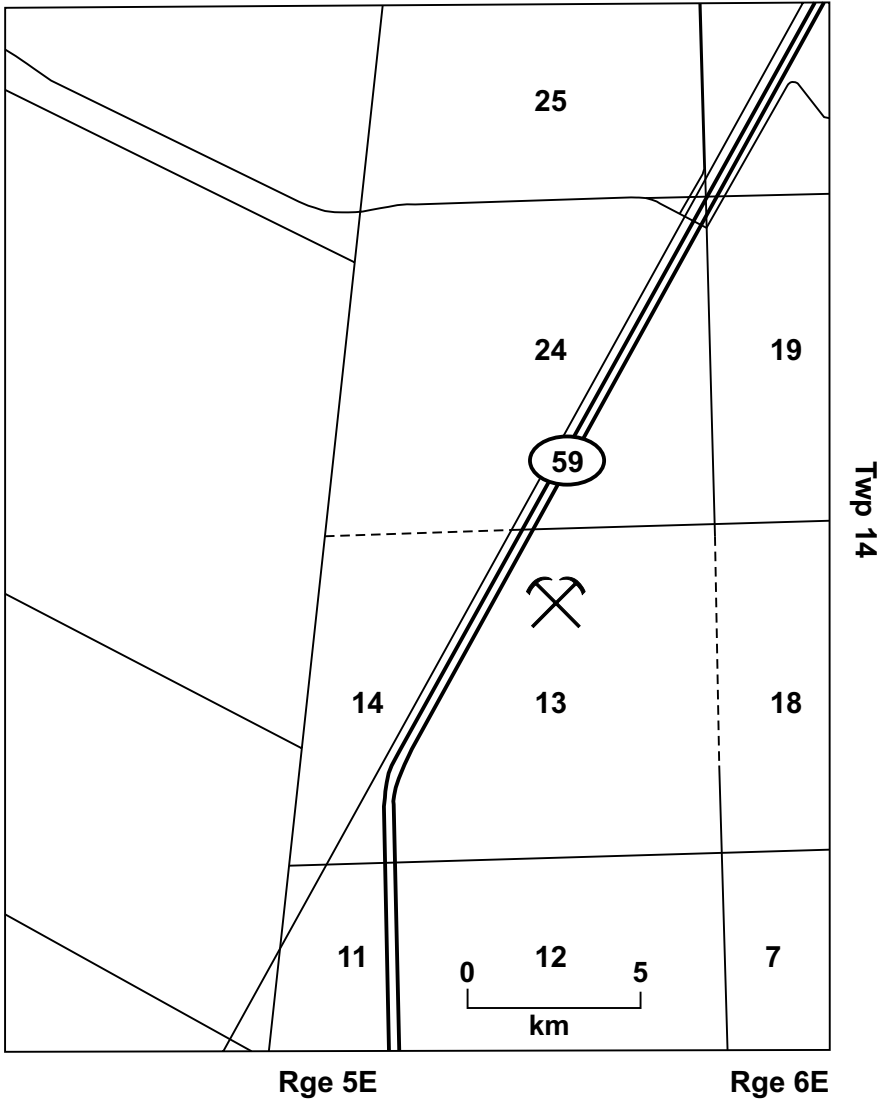
**SECTION:** RED RIVER FORMATION:  
SELKIRK MEMBER (3.0-4.0 m): dolomite; very thin to thick bedded; regular contacts; light brown tan on weathered face with orange; fresh is the same; wackestone to grainstone; abundant fine grained fossiliferous material; fine to coarse grained; some beds appear to be leached.

**SITE NOTES:** Overburden of 1.5-2.0 m

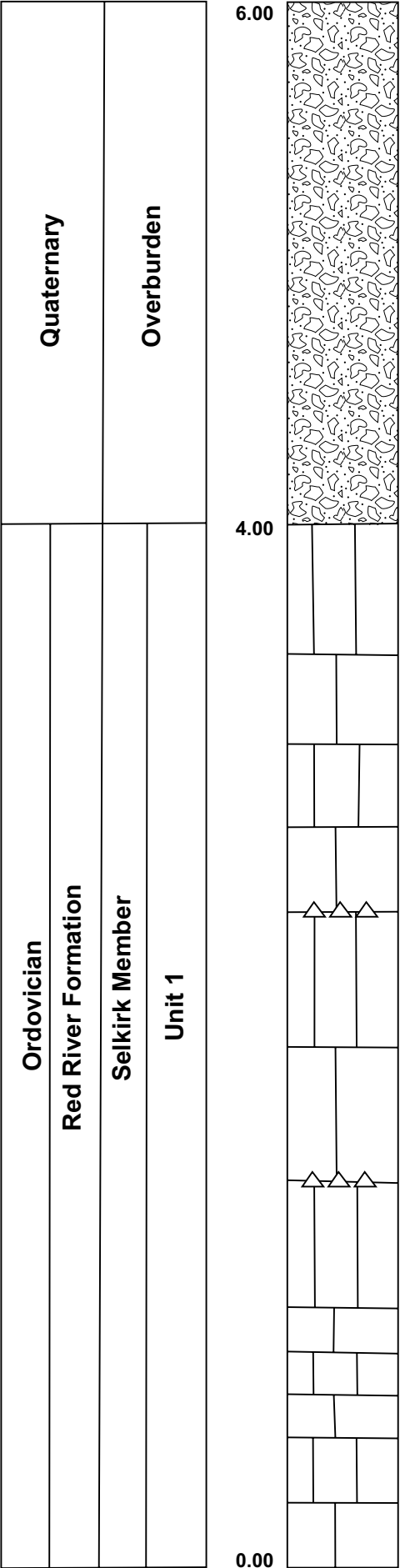




**Hadiken Quarry**



Hadiken Quarry

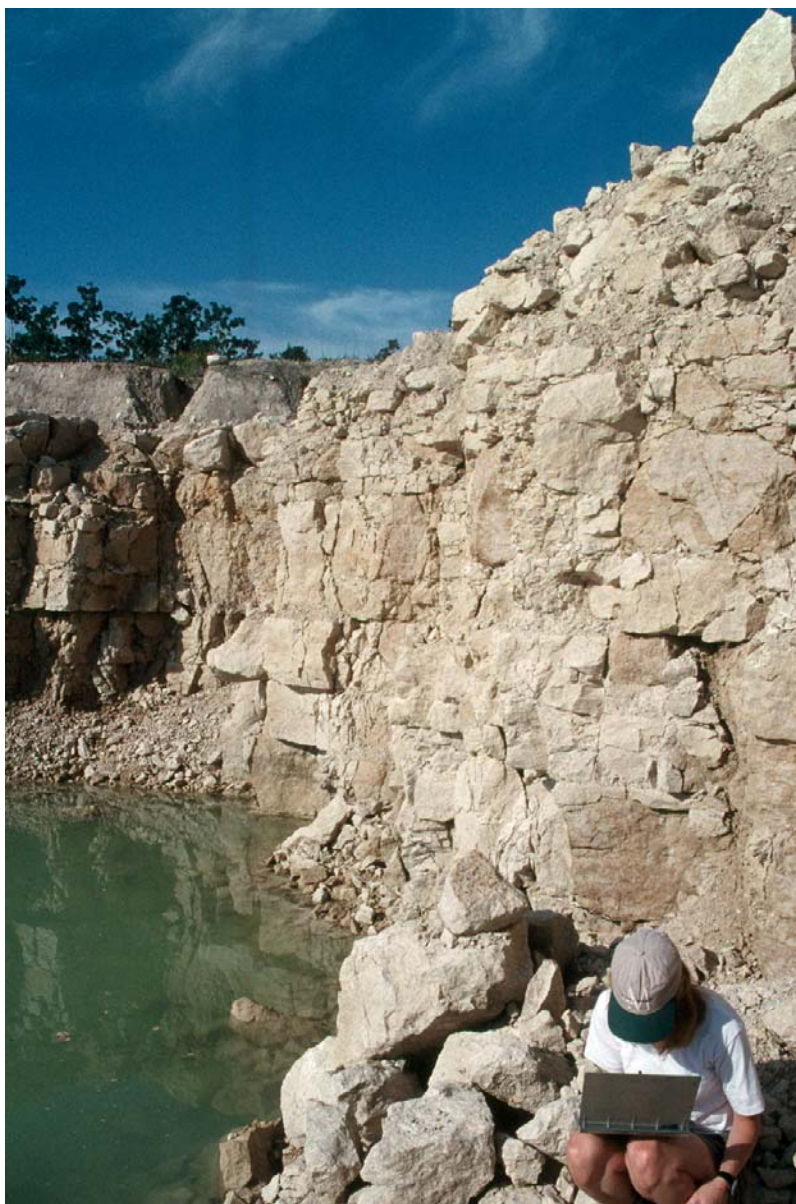


Dolomite; very thin to thick bedded; regular contacts; light brown tan on weathered face with orange; fresh is the same; wackestone to grainstone; abundant fine grained fossiliferous material; fine to coarse grained; beds appeared to be leached

Chert

Chert

0.00  
metres



Hadiken 02 – 1996-01-08, Hadiken Quarry. Selkirk Member of the Red River Formation. West wall and sump pit. Note the rubby nature of the rock face. Karla Horsman for scale.





Hadiken 03 – 1996-01-08, Hadiken Quarry. Selkirk Member of the Red River Formation. . West wall and sump pit. Note the rubby nature of the rock face.



Hadiken 04 – 1996-01-08, Hadiken Quarry. Selkirk Member of the Red River Formation. Receptaculites fossil.





Hadiken 06 – 1996-01-08, Hadiken Quarry. Selkirk Member of the Red River Formation. South wall, sump pit and pump.



Hadiken 07 – 1996-01-08, Hadiken Quarry. Selkirk Member of the Red River Formation. Close-up of massive boulders next to sump pit.





Hadiken 08



Hadiken 09



Hadiken 10



Hadiken 11

Hadiken 08-11 – 1996-01-08, Panorama of Hadiken Quarry. View from southeast to southwest. Selkirk Member of the Red River Formation. Overburden (1.5-2 m thick) and freshly blasted rock.



Hadiken 08 – 1996-01-08, Panorama of Hadiken Quarry. View towards the southeast. Selkirk Member of the Red River Formation. Overburden (1.5-2 m thick) and freshly blasted rock.



Hadiken 09 – 1996-01-08, Panorama of Hadiken Quarry. View towards the south-southeast. Selkirk Member of the Red River Formation. Overburden (1.5-2 m thick) and freshly blasted rock.



Hadiken 10 – 1996-01-08, Panorama of Hadiken Quarry. View towards the south-southwest. Selkirk Member of the Red River Formation. Overburden (1.5-2 m thick) and freshly blasted rock.





Hadiken 08-11 – 1996-01-08, Panorama of Hadiken Quarry. View towards the southwest. Selkirk Member of the Red River Formation. Overburden (1.5-2 m thick) and freshly blasted rock.



Hadiken 12 – 1996-01-08, Hadiken Quarry. Selkirk Member of the Red River Formation. East face. Karla Horsman for scale.