

AGATE AND AGATIZED-WOOD BEARING GRAVELS OF SOUTH-CENTRAL SASKATCHEWAN

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Most gem and mineral collectors are familiar with collecting localities in British Columbia, and indeed it is considered to be essentially the only focal point for western Canadian collecting. It is generally not well known, however, that the plains of southern Saskatchewan also have deposits of agate and agatized wood.

Southern Saskatchewan is characterized by a cover of Pleistocene till and gravel over Paleocene and upper Cretaceous sands, silts and clays, which are exposed in river valleys and badland areas. Where Ice Age deposits do not cap these bedrock sediments, an upper Tertiary gravel deposit frequently does. These Miocene and Oligocene age gravels are widely distributed over southcentral and southwestern Saskatchewan, often forming crests of hills and other higher elevation deposits. Such gravel deposits and gravel pits are ideal areas for prospecting for associated agates and agatized woods. During my

several years of wandering the southern Saskatchewan countryside for notable agate accumulations, I have located what I consider to be amongst the best agate-bearing gravel deposits in this part of Prairie Canada.

It is the intention of this article to discuss recent finds of agate in the gravel pits around the town of Rockglen. I have located five good collecting areas in the Miocene-age Wood Mountain Formation, a sand and gravel accumulation associated with the southcentral portion of this province.

It is very difficult to give mileage directions from such and such a point to these deposits because of the confusing nature of the repetitious grid road system. Nevertheless, the locations are best described by the following legal section division designations to be used in conjunction with the available topographic maps of the area.

Locality	LSD**	Section	Township	Range	Meridian	Topographic Map
1	NW 6	32	2	30	W2	72 H/4
2	NE 16	23	1	2	W3	72 G/1
3	SW 8	12	1	1	W3	72 G/1
4	NE 7	7	1	30	W2	72 H/4
5	NE 9	33	1	29	W2	72 H/4

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**Legal subdivision



Well agatized wood.

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All five of these localities are gravel pits between Rockglen and the Canada-United States border, a distance of about 12 miles.

For those rockhounds willing to enhance the location of these gravel pits without the use of topographic maps, I gave mileage directions to each locality in turn.

Locality 1: This gravel pit is probably the poorest locality of the five described here, but it is the most accessible. From the south end of Rockglen go 1 mile south, then 1.7 miles west on Highway 2. The gravel pit is on the south shoulder of the road and is visible from highway. The gravel pit is small and shallow, not more than a hundred feet across and less than ten feet deep. The gravel is fine, with clasts generally under an inch diameter. The agate clasts are infrequent, usually a monotonous buff brown and under 1/2 inch diameter. The wood is more frequently found but not well agatized. Most of the replacement mineralization appears to

be a firable clayey material, not unlike the outer rinds of carbonized wood. Nevertheless, some very large stumps and trunks of this non-gem quality replacement material have been found in farmers' fields in the area.

Locality 2: This is the best of the gravel pits I have found during my field work. All the accompanying photographs were taken at this site, as well as the photographs of the recovered agates and woods. The locality is reached by going 1 mile south of Rockglen, 7 miles west on Highway 2, then 6 miles south, 4 west, 2 miles south and 1 mile east to deadend at the pit. The gravel pit is relatively small, about 150 feet wide, cut across the side of a small knoll. A 15-foot high sand and gravel bank is exposed. The gravel clasts are as much as 4 or 5 inches across and accumulate in extensive talus slopes. The agate is of a wide variety. Some of it is similar to Montana agates, the clear chalcedony with black interior patches of various abstract designs. Some of

the agate is simple dark brown to buff, translucent and weakly banded, and other specimens are reasonably fine quality carnelian. Once, during an afternoon of collecting I found four 1- to 2-inch diameter agates that were highly translucent, almost transparent, flawless and an even honey yellow color. They impress me as being able to cut into cabochons similar to fine amber. This particular variety of agate I personally prize, but that's but a matter of taste. Dull deep reddish brown jasper clasts are prolific throughout the gravel, but they hold little interest for me. The wood sections are well agatized and usually retain the distinct concentric ring structures. The woods tend to be dark gray to reddish brown, not very colourful but solid and well agatized. Sometimes a long section is uncovered, a foot or more in diameter. When sliced open it is a beautiful assortment of gray, white, buff brown, and deep red swirls, patches and streak patterns. I have also found a fossil primitive horse tooth at this locality.

Locality 3: This locality is reached by taking the grid road south from Rockglen for 10 miles, then 3 miles west and a half mile south. A farm house is situated opposite the gravel pit, at which permission must be asked



Searching for agates in a gravel pit of the Wood Mountain gravels. Paul Broughton

to collect. There is a wide variety of agates and woods similar to Locality 2 but the overall size is smaller, usually around an inch in diameter, or less for the agates. The woods are well agatized but relatively hard to find.

Locality 4: This gravel pit is reached by travelling 10 miles south from Rockglen, 2 miles west, then a half mile south to bring you against the base of a steep gravel hillside. Park at the base and walk a quarter mile up the hillslope on the jeep trail to the gravel pit on the crest. The drive to the top is not recommended as there is no place to turn around. The pit is small and essentially but a scraping off of the hilltop. Nevertheless, there is plenty of well agatized wood here, but relatively little agate.

Locality 5: This large gravel pit is reached by taking the grid road south from Rockglen for 6 miles, then 3 miles east. The pit is visible from the road. I have not had very much success at this locality, but friends report finding petrified logs ten to a hundred pounds or more in weight. It is not too bad for agate of rather monotonous color, though, and should be investigated more thoroughly.

The above are the best agate collecting localities that I know of in this part of southern Saskatchewan. I prefer to hunt for agate and agatized wood in gravel pits, but fellow geologists and seekers equally appreciate wandering across fields and hillsides hunting for surface float. Many of my friends like to walk the beaches of Fife Lake for pieces of petrified wood exposed along the shore. Many 40- or 50-pound sections have been recovered this way. Fife Lake is 4 miles northeast of Rockglen. I have never walked its shores because of recent high water levels, but, someday I shall. The story of that will be another day, another time.

