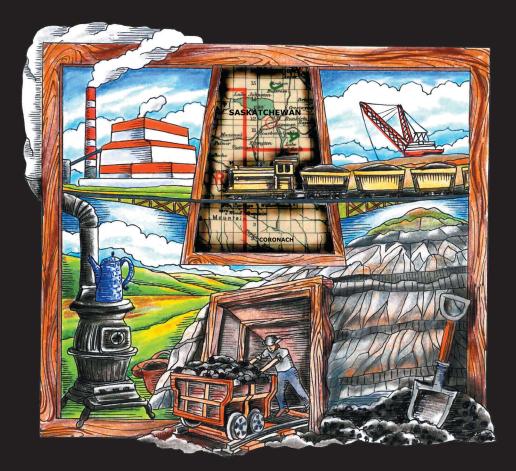
Coal in Coronach

a living heritage project





Kristin Catherwood originally published April 2017 reprinted July 2017

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Editor: Kristin Catherwood Layout and design: Jan Morier Cover art: Andrew Meredith

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Living Heritage building a sense of identity, belonging & place

Living Heritage are those values, beliefs, and ways of living we inherited from past generations that we still use to understand the present and make choices for the future. This Living Heritage shapes our sense of identity as individuals and our relationships with others, shaping our communities and our quality of life.

Safeguarding our Living Heritage means nurturing our diversity in all its forms, our languages; customs and traditions; natural spaces and significant places; buildings and artifacts. Safeguarding our Living Heritage is more important now than ever before, as we explore and discover our place within a global community. Safeguarding our Living Heritage is accomplished through documentation, celebration, transmission of knowledge and skills, and adopting sustainable practices and processes.

Intangible Cultural Heritage

From the UNESCO Convention on the Safeguarding of Intangible Cultural Heritage (2003):

The practices, representations, expressions, knowledge, skills, as well as the instruments, objects, artifacts and cultural spaces associated therewith – that communities, groups, and in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity.

Dedication

For the people of Coronach and the R.M. of Hart Butte No. 11.

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All those who appeared on film and all those who contributed articles to this booklet,

and

Everyone in the community who helped in any way—from giving directions, to attending our events, to suggesting potential participants. This has been a community project and there are too many people involved to list individually here.

Project Partners

This project would not have been possible without the support and generous financial contributions of: SaskPower Poplar River Power Station, Westmoreland Coal—Poplar River Mine, Town of Coronach, R.M. of Hart Butte No. 11, Coronach Economic Development Board and the Coronach Museum.

Introduction: Discovering Coal in Coronach

Kristin Catherwood

Coal is a big story, and one that is both global and local. The landscape we live in today, both cultural and geographical has been, for better and worse, shaped by coal. Its overarching importance as the fuel which powered transportation and heated and lit homes and businesses was even more significant in places where coal was also extracted from the earth, as is the case in the Coronach region. Coal is responsible for Canada and the United States' historical and current prosperity, and Coronach is a mirror of the importance of coal to our western society as a whole.

In the first decades of the 20th century, settlers from Europe, the UK, eastern Canada, and the United States claimed homesteads in the area just

west of the Big Muddy Valley in southern
Saskatchewan. In this part of the world, trees are few and far between.
Heating fuel was a major concern. But the local environment provided in the form of lignite—a soft, high-moisture coal. Of all the types of coal, lignite is perhaps the humblest. But it was plentiful, available, and economical, and



homesteaders relied on this local source of energy. Some people made their livings mining it.

This Coal in Coronach Living Heritage project is not the definitive story of coal in this region—it is rather an update on some of the fine work that has already been done to document the history of coal in Coronach, and perhaps an invitation to pursue further documentation of life in the area. I spent about five months working on this project, driving back and forth to Coronach from my home in Radville, usually on the #705 grid, known locally as the Harptree Road.

I remember the first time I ever drove on that road several years ago. It was dark and I was taking a shortcut home from Willow Bunch. As I approached what used to be the village of Harptree, I noticed bright lights to the south. Knowing Coronach was down there, this had to be the mine. I knew very little about it then, only that there *was* a mine and a power plant. Despite my frequent travels in the Big Muddy area and all my research into its heritage, I knew next to nothing about the coal industry, neither historical nor current. I had no idea that under the rolling hills of this country there were once networks of tunnels and rooms of early underground coal mines. That night, those lights seemed mysterious and powerful. Now that I know much more about coal in Coronach, it no longer seems mysterious, but it still retains its power.

Through the research for this project, I have now been fortunate to see the inner workings of both the power station and the mine. I toured the draglines at the mine, both the newer Lot 15, as well as the original "Great Gus" (named for August "Gus" Sorsdahl, an early settler whose homestead was later mined). I've seen the giant inferno of the boilers at the power station – the raw energy that is transformed into electricity. But even besides the giant machines, coal in Coronach is powerful in another way. It allows local people to stay in their home communities, to raise their children close to their roots, and to keep their family farms and ranches going. Local business owners can make a living, and townspeople and rural residents have access to services that would likely not exist without the coal industry. In 2017, Coronach and area is a prosperous and bustling place, and this is powered in large part by the mine and the power station.

Though this project is entitled "Coal in Coronach" the industry based at Poplar River Mine and Poplar River Power Station is also important to several nearby communities. People commute from neighbouring communities like Rockglen, Willow Bunch, Assiniboia, Bengough, and from the smaller villages, hamlets and farms and ranches nearby. I learned that agriculture and the coal industry are often intertwined here. Family farms and ranches are thriving in the area due in part to the off-farm income earned by jobs at the mine or power station. Young people who might otherwise be forced to leave the area to find work can stay and make their livings close to their hometowns.

An important part of this story is how local landowners, concerned about the loss of viable agricultural land and fair treatment, formed the Poplar River Surface Rights Association. They fought for equitable treatment for land prices and also for responsible land management in the form of reclamation, whereby mined land is returned to agricultural productivity. This reclamation

process was innovative at the time that it was established in the Coronach area, but has now become compulsory in all new strip mines in Canada.

There are deep roots in the coal industry here. The present industry is about forty years old, and already multiple generations of the same families have made their livings at either the plant or the mine. Connections to the local coal industry go even further back for some whose family members worked in the early underground and strip mines in the homesteading era of the early twentieth century.

Much of the story of coal in Coronach is contained within its intangible cultural heritage. Very little physical evidence remains of the early mines in the area; in fact, there is almost no way one could tell that there had ever been as many mines as there once were. After some incidents where explorers passed out from lack of oxygen or were endangered by unstable conditions, all of the mines were closed in permanently. This was necessary for safety, but unfortunate for heritage. Even the original locations of the new strip mining operation are not easy to pick out on the landscape.

Much of the story of coal in Coronach resides in memory only. This was how I first came to learn about this rich living heritage.

I met Harold Siggelkow at the Coronach Museum in the summer of 2014. We got to chatting and Harold told me about his days as an underground coal miner in Coronach. I was intrigued by his stories, and wanted to know more. In the fall of 2017 when the opportunity arose for a living heritage project based in a rural Saskatchewan community, I immediately thought of Harold and the story of coal in Coronach. Harold proved to be an invaluable source of information. His written history of the coal mine he owned in Coronach in the 1940s was the inspiration for this booklet. He also graciously permitted me to film an expedition to one of the few remaining mines with any physical remains – the Bennie Berge mine at Red Butte. That was the beginning of the video documentary which accompanies this booklet. Harold has also created a map for this booklet, based on his memory and local historical sources, to document the old, abandoned mines in the area. To my knowledge, this is the only record of its kind that documents these early mines in the Coronach area.

The current strip mining operation has moved twice, and is now at its third location about fifteen kilometres north of Coronach. Remnants of the first two strip mine locations can still be seen with a careful set of eyes and a local guide to point it out, but the reclamation process has been so successful in the area that it is difficult to tell the difference between reclaimed land and land that has never been mined. In fact, were it not for the power station on a commanding ridge dominating the landscape, and, if you're on the right back road, the spoil piles resembling small, craggy mountains and sometimes a glimpse of one of the draglines working, it would be easy for visitors to the area to overlook the importance of the coal industry to this area. But any conversation with a local will inevitably contain some reference to either or both the mine and the plant.

Coronach was the perfect community for this project. Coal and coal mining was historically important in much of southern Saskatchewan; in my own family, my great-grandfather used to haul coal from the Gladmar mine, thirty miles south of our farm (and about fifty miles east of Coronach). Likely hundreds of small mining operations existed in southern Saskatchewan, since it is sitting atop a coal field that stretches from the southeast corner (where mining has been and continues to be very important in the Estevan area) to the Cypress Hills in the southwest, with particularly rich coal beds in the Souris Valley region near Estevan, the Wood Mountain/Willow Bunch area, and at the eastern edge of the Cypress Hills near Shaunavon. In a mostly treeless country, one could argue that the early homesteaders could never have survived here in the numbers they did without these local coal reserves. However, by the 1950s, the need for local coal had mostly disappeared, and with it went these mines. Coal has continued to be important in the southeast part of the province near Estevan, but with the development of the oilfields in the area, it is not so much a story of coal specifically there as energy development generally. In the Coronach area, I would argue that nearly everyone's life is in some way touched by the coal industry, thus making it the ideal place to explore the living heritage of coal.

This living heritage project is the first of its kind for Heritage Saskatchewan, and is part of our ongoing efforts to promote intangible cultural heritage as part of our living heritage. Living heritage informs our values, shapes our identities, and is woven throughout all communities. This project is our attempt to demonstrate how we can examine particular themes and topics in our communities through a lens of living heritage, and in doing so, strengthen and create connections. It is also an invitation for the community to further explore its living heritage as a source of future community projects and initiatives.

Coronach owes its current size and prosperity to the coal industry, and yet the town is still not immune to the challenges faced by most rural places: depopulation and the loss of services. There is no longer a hospital in Coronach, nor a doctor. As recently as January of 2017, the CIBC branch in town was closed, and other small businesses have struggled. This is a much larger story, but brings home the hard reality that rural places are under pressure, and without the current industry, Coronach would certainly have even fewer services and businesses than it does presently.

This project explores the coal industry in Coronach at a time when change is inevitable; how that change will occur is unknown. The articles in the following pages have been written from a variety of perspectives by local people. The accompanying video documentary* hears from even more local people. As the coal industry faces an uncertain future, so too does Coronach.

This project has two intentions: to document the living heritage of coal in Coronach, and to celebrate and recognize its importance to the community. In so doing, we aim to promote the continuing nurturance of this heritage in Coronach and keep it alive for future generations. From the start, this has been a community project, and most of its stories are told by the people whom they concern. The articles in the following pages are written by local people, and they represent just a few perspectives on the story of coal in Coronach. The twelve video interviews I conducted add further insight to this story. These will be donated in their entirety to the Provincial Archives of Saskatchewan so they can be accessed publicly into the future. But there are other stories of coal in Coronach that are yet to be discovered and documented. From this point on, it is up to the community to further curate this heritage. Heritage Saskatchewan has coordinated this project, but the story belongs to Coronach.

Kristin Catherwood is the Intangible Cultural Heritage Development Officer for Heritage Saskatchewan. Previously she worked for SaskCulture and the National Film Board's Grasslands Project. She earned a Master's degree in Folklore from Memorial University of Newfoundland, and her graduate thesis resulted in The Barn Hunter blog which chronicled her cultural exploration of rural life. In her work with intangible cultural heritage, Kristin uses storytelling as a tool to connect people with place, and believes in empowering communities to tell their own stories. Kristin was born and raised on a century family farm near Ceylon, and her love and respect for Saskatchewan's rural cultural landscape is at the heart of her work.

^{*}Available on YouTube

The Language of Coal & Glossary

Kristin Catherwood

All occupations have their own jargon, and I discovered there is a language of coal. In conversations during my time in Coronach doing research for this project, words abounded that I was not familiar with, and yet were spoken and understood with ease in their proper contexts. Some words, used in early mining and domestic coal use, are falling out of common usage, like "scuttle." Other words are modern but industry-specific, like "dragline." This glossary of coal-related words may be a useful resource while reading the articles that follow. Another note on language: though the official name of the SaskPower facility is the Poplar River Power Station, in common everyday use, it is referred to as "the plant."

Ash pan – a pan below the firebox which caught the ashes. It needed to be emptied at least once a day.

Carbide lamp – carbide is a carbon compound, which when mixed with water (or in a pinch, saliva) produces acetylene that powered miner's lamps, which were hooked on to canvas caps. The only source of light in early underground mines.

Clinker – produced by heat that melts foreign material in the coal so that it melds together into a hard substance.

Coal Car – a wooden box on top of steel wheels which were run on a track to transport coal out of the working rooms to the head of the mine where it was transported. Usually ½ ton. Similar to a rail car, but smaller and uncovered.

Damper – a metal disc in a stovepipe accessed by a handle on the outside which controls the airflow into the stove.

Dragline – a power shovel that operates by being dragged by cables at the end of an arm.

Drayman – a man with a team of horses and wagon who hauled mail, freight from trains, coal, and any other goods that needed to be delivered.

Firebox – the chamber in the stove where coal or other fuel was burned.

Fly-ash – fine particles of ash of a solid fuel carried out of the flue of a furnace with the waste gases produced during combustion.

Fresno – a scraper pulled by horses, usually a team of four, which needed to be handled by a driver. Used in early strip mines.

Lifter – a handle fit into the burner tops on cook stoves to lift the burner plate to access the firebox below.

Overburden – the sedimentary rock material on top of coal seams.

Rooms – chambers dug into the earth extending from main tunnel of an underground coal mine. They could extend several hundred feet from the main tunnel as coal was removed. These were the active sites of coal extraction.

Poker – a metal rod with a hook used to break up embers and spread ashes in the firebox.

Scuttle – a pail, usually made from tin, which was used to carry coal in a domestic setting.

Spoil piles – the overburden removed by draglines which is placed in large mounds during the mining process.

Squib – a twist of paper with black powder in it, and a fuse on the end – like a small firecracker. It was used in the process of shooting coal loose in miners' rooms.

Tipple – a wooden structure at surface level above an underground coal mine. A bucket attached to a pulley system brought coal to the surface.

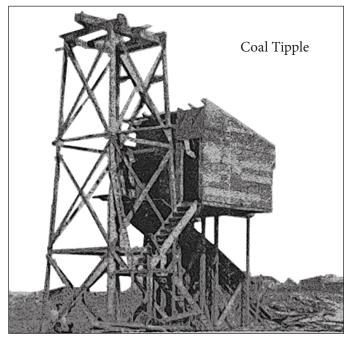


Photo originally appeared in *From the Turning of the Sod: The story of the early settlers in the R.M. of Hart Butte No. 11.*

The Early Years of Coal Mining in Coronach

Harold Siggelkow

Lignite mining in the Coronach area began in the early 1900s. Obtaining heating fuel in the area was a problem and mining began by settlers "digging" their own coal and hauling it home for winter use. The main influx of homesteaders flocked in from 1910 to 1912. Settlers came from central and eastern Canada, the United States, the United Kingdom, and Europe. With this number of people, and some of them with mining background, the lignite mines opened up to meet the domestic market demand. With the coming of the railroad in 1926 and 1927, towns were established, creating another market for lignite coal. This market was served by several lignite mines in the Coronach and rural area until the early 1950s, when heating oil became popular and brought a demise to the lignite mining business. Lignite was not exported from the area in those years.

There were a number of mines serving the area. A few were strip mines, but most of the mines were underground with the entry in the side of a hill, on an incline to the coal level. Strip mines were located where there was a minimum amount of overburden, which would be stripped with a fresno and four horses, or a number of these outfits. This was a long and tedious task and all summer would be spent stripping to expose the coal seam to be mined in the fall and winter.

It is a significant contrast to the huge equipment being used currently at the Poplar River coal mine. One swipe by the dragline and, in about a minute, ninety cubic yards of overburden has been moved. With four good horses on a fresno, it would take many hours' work to remove the same amount of overburden. This was probably the reason for so few strip mines in the area in the early years. I recall in the "Dirty Thirties" when Fife Lake was only a mud hole, they mined coal out of the lake bed. No overburden, but it was wet and mucky.

Each local mine owner believed his mine had the best coal—less slack, more heat, fewer clinkers, less ash, better burning, and whatever argument could be thought of. However, the demand for coal from a particular mine was usually in proportion to the consumer's hauling distance, waiting time in the lineup for a load, and so on.

The mine I am most familiar with is the Coronach Mine, of which I was the proud owner for two years just before fuel oil started taking over the heating market. This mine was located on the southeast corner of town, under

the (present-day) golf course. This was a vertical shaft mine with a tipple at the top to haul the coal up from the mine. The shaft was 4 feet square and 56 feet from the surface to the bottom of the pit. Coal mined from the five-foot seam was dumped into the bucket and hoisted to the tipple, then dumped into a chute for loading into the wagons or trucks.

The working area of the mine was a main entry seven or eight feet wide with track laid down the centre and a metal plate turntable at the entrance to each room. Rooms were mined at right angles to the main entry. These were sixteen feet wide with track laid down the centre. Slabs were used for ties for the track. The room was timbered on each side of the track. Timbers were placed four to five feet apart with about 2 ½ foot cap pieces. As mining progressed, cuttings and slack were shovelled against the side of the room behind the timbers.



There was a clay parting seam about 16

inches from the floor. This parting seam would be removed—running adrift, as it was called - prior to blasting. In earlier years, this drift was done by hand with a drifting pick. Later it was done with an electric coal cutter. It was controlled by two cranks—one to extend the cutting bar, the other to sweep back and forth across the parting seam (three turns in – sweep the room, three turns in—sweep back again until the end of the bar and reverse, add another bar until five feet into the seam). The cutting machine would be set on blocks and jacked solid to the mine roof. We used five cutting bars, from one to five

feet. The bars had sharp, claw-like teeth that oscillated and cut the drifting seam as it swept back and forth across the face of the coal. The cutting had to be raked out and shovelled back onto the slack pile. It took a good hour to make one cut, which was done in each room once a day.

After the cut was made, and if necessary, track laid and timbers driven, six holes were bored by hand with the coal auger - three on top and three on the bottom. A shot with black powder was then made by wrapping a newspaper around a short length of $1\frac{1}{4}$ " pipe, folding the paper around the bottom. The correct amount of powder was poured into the pipe for the size of shot required and the pipe drawn out of the paper. A shooting barrel was inserted just into the paper and the paper folded around the shooting barrel (a piece of $\frac{1}{4}$ " steel tubing), the shot carefully inserted into the hole and shoved to the back of the hole. With clay from the floor, the shot was securely tamped into the hole.

When all the miners had their rooms finished to this point, they each set off their shots—6 in each room. A squib was inserted into the end of the shooting barrel. The miner lit the squib with his carbide lamp and retreated back down the room and around the corner out of the way. The squib burned like a fuse until it ignited and shot up the barrel into the powder and blew. This procedure was done for each of the six shots. After about the third shot it would be so smoky you would have to feel your way around. Sometimes the squib would go out and there you'd be—"Did it go out or didn't it?" You'd wait a considerable time and then go to light the squib again. That was the end of the day. The smoke cleared out the air shaft throughout the night and in the morning it was back down the hole to shovel out the coal shot loose. The coal was loaded into half-ton cars, pushed down the track to the bucket at the shaft, and hoisted to the surface for sale.

A lignite miner's day was long and hard, starting at 8:00 a.m. and finishing any time from 11:00 p.m. to 1:00 a.m. This was a typical day in the mine:

7:00 a.m. — Breakfast

- Pick up what supplies might be needed for the day: blasting powder, carbide, water, matches, small tools.
- Put on your canvas miner's hat, which had a piece of violin string attached to it so that if the orifice on your lamp plugged, you stuck the string in the hole to unplug it. Fill your lamp with carbide and water, light it, walk down the 60 or so steps in the spiral stairway to the bottom of the mine, walk down the entry to your room by 8:00 a.m.

8:00 a.m. — Work day begins

- Load out the coal (each miner had his own room). Fill a half-ton car, push it out of the room onto the turntable, making sure the entry is clear first. Turn the car, push it down the main entry to the bucket, and dump it. Ring the gong when all is clear 2 rings to go, 1 ring to stop, 3 rings to talk.
- Up the stairs for dinner at noon.

1:00 p.m.

- Load out coal until all the loose coal is loaded out. This could be anywhere from 3:00 to 5:00 p.m., depending on how your shots turned out, whether the coal shot loose in huge chunks and had to be wedged apart, or the shot was in a crack and didn't loosen the coal too well, or any number of circumstances that could be a factor in how quickly you could get your coal out. Each room would have around 6 to 8 tons of coal shot loose each day.
- Clean up the room, make any repairs necessary for safety, etc. and be ready for the cutting machine. Before the cutting machine era you would run the drift or cut with a pick – the width of the room and as far in as you could reach.
- Up the stairs for supper at 6:00 p.m.

7:00 p.m.

- Put in your cut, shovel back the cuttings, clean up the room, lay track, drive in timbers, drill shot holes, place and tamp shots, when everyone is ready, shoot your room and all get out of the mine.
- Repeat the performance next day.

Above ground, the hoist man operated the tipple. He hoisted the bucket, once he heard the signal of two sharp knocks on the gong, dumped the bucket and let it back down. He opened the chute and loaded the customer's wagon or truck and hopefully collected for it. The price was \$2.25 per ton when I had the mine. His day finished when the last car of coal for the day was dumped and hoisted to the top.

As there was no stockpile of coal on the surface - the coal was sold as it was mined - and delivery was slow, customers were always anxious to be at the front of the lineup. Sometimes they would have to wait most of the day for their load. It was not unusual for people to leave their truck, or if they lived close to the mine and had horses, they would bring the wagon in, unhook and go home and come back the next morning. The local drayman would

If there was a southeast wind, we would invariably have "gas in the mine". always have his wagon because he couldn't afford to stay in line all day. Each farmer required from 10 to 20 tons of coal for the winter, so getting in the supply in the fall was quite an undertaking. The town homes, stores, schools, etc. had their coal delivered as they required it.

One good point about working underground was that it was always the same temperature, with no wind or stormy weather, which was something one really noticed when stepping out of the mine in the wintertime. If you stayed in a bunkhouse at the mine, it wasn't much to come up to. Usually it was about as black as the mine. When you came up at night it would be cold and the water frozen. You would have to light a fire, try and wash up and finally get to rest. Then often customers would start to line up at the mine as early as 4:00 or 5:00 a.m. Trucks would be running or horses stamping, people tramping around and talking—not very conducive to restful sleep.

The mine had a slight incline downhill from the shaft, which meant the loaded cars had to be pushed uphill to the shaft—a distance of about one thousand feet. We decided to get a Shetland pony to pull the cars. I bought one, put a platform on top of the bucket and lowered him down in to the mine. We worked all right, except that it took another man to work the pony, which cut into already marginal profit, and I always had to go down Saturdays and Sundays to feed and water him. The pony never saw daylight. Being partial to animals, I put the platform back on the bucket and hoisted him out after about a month. We went back to pushing by hand which was just about as easy. I sold the pony to a family and I am sure the pony was thankful.

Ventilation in the mine was provided by natural air circulation through air shafts in the main entry drilled to the surface and circulating through to the main shaft. About every 50 feet in the rooms a drift was put through adjoining rooms, which enhanced air circulation and was a safety factor as well. If there was a southeast wind, we would invariably have "gas in the mine." This could be detected by our carbide lamps. When the flame began to glow reddish and grew to be five or six inches long and producing sooty smoke, it was time to get out.

The mine always "worked." At midnight, when all was quiet, you could sit there and hear a little crack here and there, see a little slack dribble from the roof. It seemed to work more at some times than others. I guess it was the pull of the moon or something.

All in all, the old lignite mine served its purpose in the development of the area. It is a piece of history that will not be seen again. I get a bit nostalgic when I see a hundred trucks roll up the ramp of the current strip mine, and I think of my half-ton car of coal down under. When I see the bucket of the huge draglines taking a bite out of the uncovered coal to load on to those trucks, I think of the twelve or fourteen hours it took when I was mining to get six to eight tons to the surface.

One thing about the new mine, they roll 365 days a year. When I was mining here, we had a rush in the fall and then steady all winter. Summers were "slack" so to speak. Some mine owners mined a stockpile of coal through the summer so they would have it loose to load out in the fall, but it always seemed like a lot of wasted effort to me.

The costs of mining coal in those days included: miners' pay, other wages, fuel, blasting powder, carbide, squibs, electricity, track, timbers, unemployment insurance, workers compensation, royalty (at the time 5 cents per ton), and other incidentals. The operation of the Coronach mine was similar to other underground mines in the area, except for the shaft. Most other mines had a deeper seam, maybe fewer timbers for roof support, but generally they were all about the same operation.

Harold Siggelkow was born in 1927 in Weyburn, Saskatchewan, and raised in Constance. He owned and operated an underground coal mine in Coronach in 1946-47. He also worked in underground coal mines in British Columbia before returning to the Coronach area in 1948. He married Patricia Ching, a schoolteacher and artist in 1949 and they raised five children. Harold and Patricia showed American Shetland ponies throughout North America in the 1960s. Harold was the R.M. of Hart Butte administrator for nearly thirty years, and has seen the coal industry in Coronach from the early days to the present. Patricia passed away in 2008. Harold spends his time pursuing hobbies like building and refurbishing antique furniture. He has sat on many boards and committees, both loal and provincial, throughout his life, and he currently volunteers with the Coronach Museum and Coronach Tourism.

The Domestic Use of Coal

Arleane Winter

I was born a coal miner's daughter in a sod bedroom on May 15, 1928 to Jesse and Esther Fister. We were poor like everyone else, but because Dad owned a business, we were refused government relief during the Depression years of the 1930s. Nevertheless, my childhood was a happy one. We made our own fun: playing cards, reading, playing on the snowy hills, and skating on the stream of water that ran from the spring out of the coal mine.

It was harder for our mother, what with endless meals to prepare, washing clothes on the scrub board, keeping the books for the mine, baking the bread, churning the butter, working in the garden, plus sewing our dresses. Despite all this, it seems the only complaint she ever had was backache. Many of my mother's domestic duties revolved around the coal burning stove.

Our stove was quite large. It stood 6 feet tall on four slender, fancy legs. It was made of cast iron, with six round lids which were picked up with a lifter which fit into a hole in the lids. At one end of the stove was a reservoir to store water and keep it warm. We used this hot water for washing dishes and making coffee. There was a warming oven above the back of the stove to keep food warm. On the opposite end from the

water reservoir was the fire box. The coal was stored in a wagon box or in a covered pile outside the house.

The stove was started in the fire box. You had to start the fire first with wood chips, then when it was going, you'd place the coal on top gently. The wood chips were cut

from trees collected in the coulee near our homestead. The coal was from my father's own mine. Once the fire was going, you had to regulate the damper in the stovepipe or the house would fill with smoke. The damper was open when starting the fire to allow air from the chimney to stoke the flames. Once the coal had ignited and was burning, you closed the damper to keep the heat in the stove for baking. To test if the oven was hot enough for baking, my mother would stick her elbow inside—similar to how you would test the temperature of bath water with your hand.

When wash day came around, which seemed to be often, we all carried buckets of water from the spring in the coulee to dump into a boiler on the stove. Then Mom would add lye to the water and skim off the hard curds that floated to the top. Clothes were dried on the line summer and winter. The stove was kept busy on laundry day.

Another important use for the coal stove was bread baking. My mother baked bread often, since we always had hired hands who worked in my father's mine and lived in bunk houses down in the coulee near the mine entrance. Baking bread took a long time because the yeast used in those days was slow acting. The bread dough sat all night near the warm stove to rise so it could be baked the next day. She usually baked ten loaves at a time. We sometimes made seared potato slices on the stove top, and also used it to cook all our lefse, which was a sweet Norwegian flatbread. We hung coat hangers above the open burner and lay slices of bread on them to make toast.

The stove was also used to heat bath water. On bath night, all of us bathed through the same round tub of water, with the youngest going first. You had to add hot water between baths to keep it warm. Bath night was usually on Saturdays, in front of the open oven door to keep us warm. After all the baths, the water would be black/grey from all the coal dust we washed off ourselves. Coal dirt is different from other kinds of dirt—it sticks with you, gets itself around your nails and in the grooves of your hands. You could always tell a coal miner by the black coal dust embedded in his hands. When we handled coal in the house, we used leather mitts. We couldn't use woollen ones, because they would absorb the coal dust.

We lived in a three room house on top of the hill near the coal mine. The stove was in the kitchen which faced the valley, and we slept on cots in the living room. Every spring the stove was moved into a back bedroom to make more room in the kitchen, and also perhaps to keep some of the heat out of the main living area of the house. We always seemed to have company—relatives, customers that hadn't got their wagons loaded before mealtime, and we also had house parties. During those times, the furniture was moved against the wall and someone always had an instrument to play. The floors were covered in linoleum, perfect for dancing. Everyone learned to dance at a young age.

I was never scared of the mine. We were warned of the dangers, but we still played around it all the time. It was our way of life—we never actually realized the danger as children. We also played in the water holes formed by the removal of overburden. Sometimes the miners would find interesting things. Large pieces of coal sometimes came apart in layers, and they were shiny like silk inside. Some of the layers displayed beautiful imprints of

fossilized leaves. A few of these were sent to the Royal Saskatchewan Museum in Regina.

When I was growing up, coal was the main heating source, but it's a wonder more homes weren't destroyed by fire. People would bank their stoves for the night, shut the damper off, and if the wind came up in the night, the coal would come alive and the stovepipes would turn red from heat going up the chimney. We had wood or brick chimneys, and the coal residue, or black creosote (which smelled awful) would drip down the edges of the chimney. But coal kept us warm. A coal fire would burn all night if banked properly.

The ashes dropped from the firebox into the ash pan below. This had to be dumped at least once per day, and the ashes were used for many purposes. They would be sprinkled on slippery steps and footpaths, used to clean blackened kettle bottoms, and carried to the outhouse to disinfect the toilets. Ashes that were still hot would be placed underneath vehicles in the winter to warm the engines and help them start more easily. Almost every house had an ash pile next to it.

The life of a coal miner's family was never lonely. Every day brought a new face, a different team of horses, and a different story. As I realize now, it was a hard life for my mother, but also for my father, who passed away at the age of 63 after a life of hard labour working as both a miner and later a farmer.

As a young woman when I taught at Hexagon School, I was responsible for building the fires in the coal-burning furnace in the basement. The coal was delivered through an opening in the basement wall and stored in a bin. A pipe went straight up to a chimney, and the heat rose from the furnace through a register into the classroom. It kept us all warm through the winter. Sometimes the pupils would take potatoes down and roast them on the stove so they would be nice and hot for dinner.

I met my future husband Thomas on the train coming home from Regina when I was a student. We went together for two years while I was teaching and then were married in 1949. I never did get my teaching certificate—I thought getting married was more important. Thomas was quite a catch!

As newlyweds, we lived in a little house near his family's homestead. It was very cold when we had only the cook stove for warmth. My husband got our coal from the Bennie Berge mine. As a young bride, I did all the tasks my mother had done when I was growing up: baking bread, doing laundry, separating cream, gardening, and so on. All these things I had learned from my mother, and after awhile I even found myself acting like my mother!

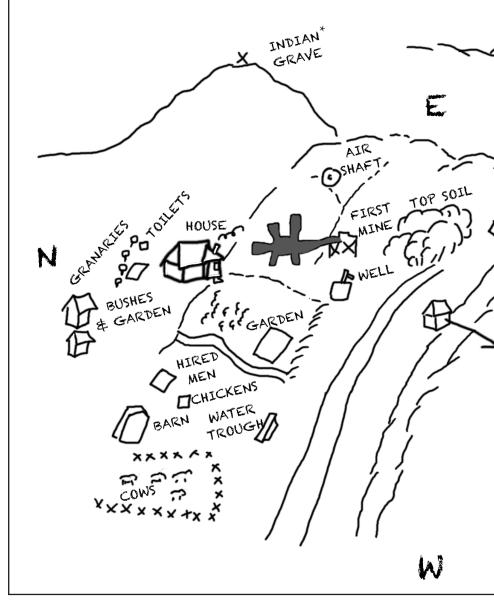
Our first child was born in 1951, and when she was an infant we laid her on the open oven door to keep her warm. Not long after she was born, we got our first furnace, and a then a propane cook stove. It turned out propane was dirtier than the coal—it greased everything up and I had to wash the walls around the stove. Around the same time, I got a washing machine. This was in the early 1950s when new technologies were making life easier for women. Tasks went much faster; the propane stove would heat up fast, and when we turned it off, it would quit, unlike the coal that burned continuously with uneven heat. It was like the difference between cooking in a microwave or on a stove top—that was how different it was to cook on propane over a coal stove. In a way it was better, in a way it wasn't.

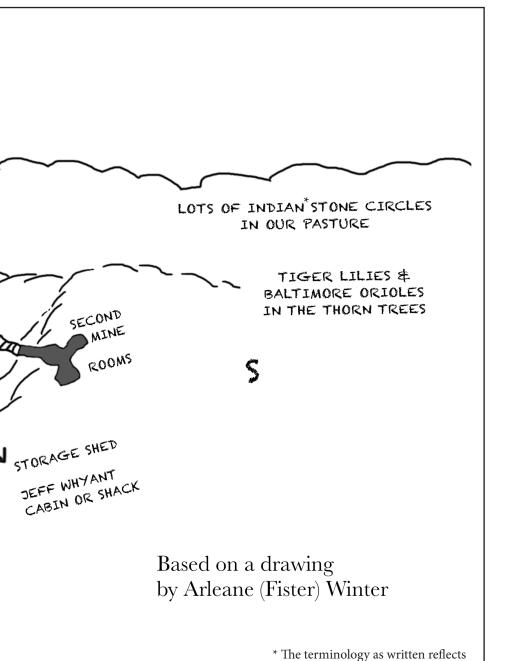
Every time we got something new, it felt like a step up, an improvement. It was the thrill of a lifetime to get a telephone. Life became more comfortable and we had more time for fun and play and family activities. With coal, life was constant work. You put it in, you took it out in the ashes. You scrubbed the soot and had to tend the fire. Though at the same time, I think families weren't as close once things became more modernized. And I think the community as well. I think we've lost some of the community spirit. In the coal days, people needed and relied more on other people. And in those days, it seemed like everyone was on the same level, no one had any more than anyone else

When I was young and married, we were busy raising our family and farming, were happy to have modern conveniences, and didn't think much about the fact that we were living in a time of great changes. But looking back I see now that I lived during a time when using coal domestically was becoming a thing of the past.

Arleane Winter was born in 1928 on her grandparents' homestead in the Buffalo Gap district. Her parents, Jesse and Esther Fister, were born in Springfield, Illinois and Selbu, Norway. Her father owned and operated a coal mine in the Big Muddy Valley from 1927-1943. He eventually sold the mine and bought a farm near Big Beaver. Arleane attended school at Big Beaver until Grade 10. She took Grade 11 and 12 in Regina, and then went to Normal School in Moose Jaw. She was only there for six weeks when a teacher shortage sent her out to teach at Hexagon school near Bengough. She taught for two years before marrying Thomas Winter in 1949. She and Tom had four children and farmed north of Coronach. Tom passed away in 2014 and Arleane is now retired in Coronach. She enjoys quilting and visiting with friends, children, and grandchildren. She is a member of the Royal Canadian Legion, the Coronach Drop-In Centre, the United Church Women's Auxiliary, a past member of the Coronach Museum board, a past member of the United Church board, and belongs to the W.H.O (Women Helping Others) Club.

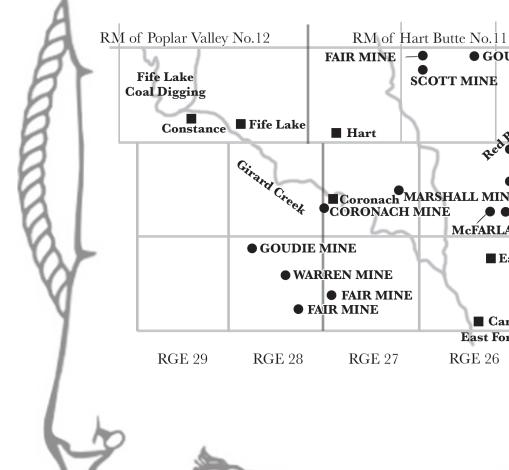
The Fister Mine and Homestead ca. 1940

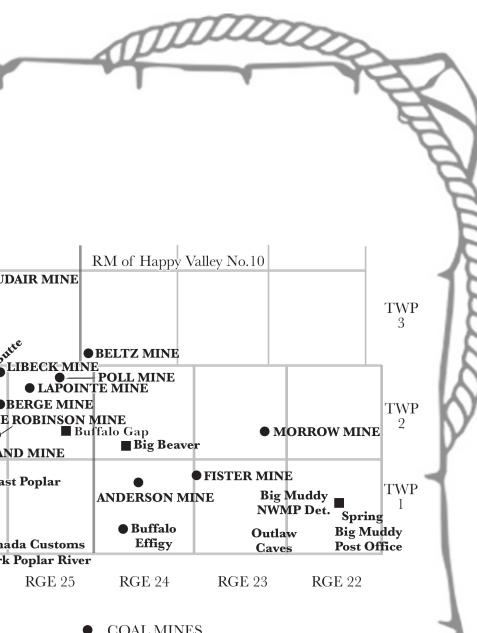




the language usage of the era.







- COAL MINES
- URBAN CENTRES

Based on a drawing by Harold Siggelkow

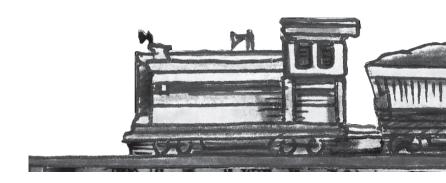
Looking Back: Coal in Coronach

Coronach School Grade 11 English Language Arts Class

I took my class to Heritage Saskatchewan's "Discovering Local Folklore" Intangible Cultural Heritage Workshop in January, 2017. That afternoon was one of the most fascinating presentations I have ever participated in. The content and ideas presented were great, but what really struck me was the rich history our community has, what knowledge the older generation has to share with us, and finally, how enthralled my students were by the conversations they had with this group of people.

Kristin Catherwood opened her presentation with a story about the Roan Mare Coulee. She expertly told the story to us, her captive audience. After she finished, she posed this question, "Does it matter if this story is true?" My Social Studies experience came flooding back to me in that instant: "Of course you have to have facts! You can't write and share stories with my community that aren't true!" What Kristin said after will forever affect my way of thinking and teaching: "The important details are factual, because they remain the same every time I have been told this story, the rest is a combination of the details I have heard from many other people. Isn't that better than having no story at all?"

Right then and there my belief system changed. We have a community full of children and I have a classroom full of students who are excited about the history of our small coal town. It is my job, my responsibility, and now my passion to share it with them. Kristin felt our excitement and urged us to "do something" with it. My students and I were inspired to create something from our experience. That is when Kristin approached me about contributing to this booklet. It couldn't have come at a better time because the first unit



of study in ELA 20 is "Looking Back." We want to send a special thanks to our community members for sharing their stories with us, and especially to Kristin for including us and also inspiring us.

Ashley Gagne, ELA 20 Teacher

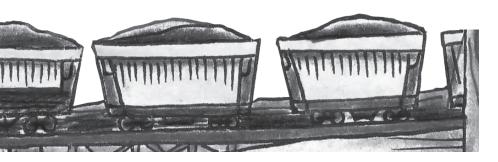
Expansion in Coronach

Jordan Duncan

With the coming of the mine, Coronach beat the size of neighbouring Fife Lake and Big Beaver, growing to 900-950 people. Coronach beat the size of those two towns with the mine and power plant and all the other businesses they brought to Coronach. Due to the expansion, the town benefitted greatly. We now have the Poplar River Dam and the Poplar River Pharmacy which were built after the Poplar River Power Station came into action.

Due to the huge expansion of people and businesses, a new hospital was needed. The hospital was built in roughly 1992. Then it was fully functional and had a full time doctor. But now we don't have a doctor. Unfortunately, all we have are full time nurses.

We have a full sized daycare in the school that has full time workers. The Coronach Sportsplex was built after the mine and power plant were built. When they were building the Sportsplex, they had to figure out where the old underground mine was so they wouldn't build it over top and have safety issues. They had to make sure they did build it away from the old mine so the floor wouldn't collapse the whole building. The Coronach Sportsplex was built just a little bit south and a little bit west of the old underground mine. These are just a couple of the great things our community has grown into thanks to the mine and power plant.



Mining for Education

Braton Doney

In 1978, the Poplar River Power Station, along with the Luscar Mining Poplar River Coal Mine (original name of the mine), officially opened. These two new projects had a high need for workers, which doubled the population. This increased the number of students enrolled in Coronach School. The population of Coronach eventually peaked at around 1300. During this peak, Coronach School's enrollment was around 350, approximately 200 more than their current enrollment.

When the mine had enough money, they brought in their equipment to the backyard of the school, leveled it out, and made the track that still lies there today. They also were involved with the funding for the playground equipment. The mine has always supplied the school with prizes for any event or contest the school held. The mine and the school have an official partnership. The mine reaches out to the school when they are in need of extra bodies to lend a hand; the school does the same.

Within the last two decades, the power plant has run the Farm Credit Canada Food Drive through the school and matched the pounds of food the students bring in with a monetary donation. The power plant, which takes the coal from the mine and produces it into energy, has accepted high school students in the Career and Work Exploration course and let them do their work for the class at the plant. In the last three to four years, Coronach has offered the Power Engineering class to its high school students. Coronach is one of the only communities in Saskatchewan that currently offers this course because we have the mine and power plant. Overall, it is safe to say that the mine has done a fair amount for Coronach School.

Building A Community

Justice Fisher

Around forty years ago, SaskPower began plans for a coal plant, forever changing Coronach's community. When SaskPower made the decision to build the plant and dam, they brought more opportunities with it. A camp of one thousand men were given the task of building the dam on the Poplar River. Many of these people were locals, mostly men in their twenties. Some of those men would later build the plant's first dragline.

"It's around forty years old and the kids still have a chance to work close to the community," Don Kirby said in an interview. He spoke about how the plant had become the centre of the community. "If it wasn't for the mine," he lamented, "Coronach would be the size of a village." The Poplar River Power Plant has become a pillar of the community, however not without sacrifice.

"It's been a challenge for some farmers to let go of their land," Don said, "I had to sell some land, out where the road goes into the mine." Just like Don, many farmers have given up land and even homes so the mine could keep mining coal. Even though they've had to give up their land and homes, many still believe that the pros outweigh the cons.

The plant and mine have become integral to the community and surrounding area. They have become a central piece of Coronach and key to its growth. When the plant succeeds, so does the town as a whole.

Close to Home

Kassandra Gent

When the Poplar River Mine and Power Station opened in town, the "small town" feeling that Coronach's 300 or so residents were accustomed to, changed. The population grew very suddenly to around 950-1050 people. Many people were excited about the business the mine would bring into town, as well as the prospect of living around so many new people.

I talked to Darlene Elder, Angela Giraudier and Linda Kirby during "coffee row" at Deb's Country Kitchen. Darlene lived near where the mine used to be and talked about how interesting it was to see everything developing and growing. She talked about seeing the dragline being built in the dam and how the public were invited for tours of it once it was finished to see how it worked.

Angela talked about how her father used to go to the mine, get coal and bring it home for them to use. She also told us that there were two different kinds of coal: one was soft and one was much, much harder. The ladies all talked about how the town changed when the mine and the plant were built. The Credit Union got lots of business. The bar was packed every night and there were lots of bar fights, most likely because of the new interactions. The school grew as new families moved into town. The kids were exposed to many new friends and the "city" way of life that the others were accustomed to. Traffic on the back roads increased. The mine also started buying land from the farmers for a lot of money.

The dragline took weeks to move from location to location. The land that the mine reclaimed was healthy and had lots of water, however it could be very rough. They talked about almost falling out of the wagons as they hit every bump. It was fantastic speaking to the ladies. As a teenager living in Coronach, listening to their stories and learning about different aspects of what their lives were like was incredibly insightful. It greatly emphasized how our modern-day life has changed from then to now.

Living on the Edge

Liam Marshall

The mines were located in Coronach, but they affected towns from all around. Big Beaver was once a large town located about fifteen miles east of the town of Coronach. The townspeople, farmers and ranchers all ran their furnaces with coal from the mine in Coronach, so they didn't have to travel far to stay warm in the winter. Previously, the next closest mine for the people of Big Beaver was Estevan, which was very far to travel for their coal furnaces.

The newer mine in Coronach was owned by a bigger company that brought jobs and money into Big Beaver because, at the time, Big Beaver had a general store with everything you would ever need, as well as a gas station. The gas station in Big Beaver was open much later than any other in the area so workers and others would stop there for fuel. The original mines in the area were private or family run, so if you weren't friends or family with the people who owned the mine, you weren't going to be employed by that person if you lived in Big Beaver.

The younger teenagers from Big Beaver went to school right in Big Beaver until it was closed and many of the kids went to Bengough because it was closer for schooling, so a lot of the kids didn't grow up around the mines. They knew that the mines were there and that there was a large power station in Coronach, but they didn't understand a thing about it.

Also with the mine being in Coronach, it brought many more jobs. Those employed in Big Beaver left there to work at the mine or plant because of the higher wages offered. Unfortunately, this was detrimental to the economy of Big Beaver. Many families from Big Beaver moved away to other towns or to Coronach because of the job opportunities and resources.

Mining Tourism

Ariana Schnell

When they first started coal mining in Coronach, it brought people from all over Saskatchewan to the small town to look for work. The small town of 300 people soon upgraded to 1050 permanent citizens, and 5000 more just

working there, according to Helen Curran. Tourism quickly followed the quick growth to Coronach and surrounding area.

When they first built the dragline, they did tours of the dragline and of the rest of the mine, and then they started doing tours out at the Poplar River Power Station. The town started thinking about what else could be a tourist attraction. That's when they started the Big Muddy Tours where they show people Castle Butte and the Sam Kelly Outlaw Caves. As more and more people came down to the mine, other towns started to get the tourism idea, too. So Willow Bunch started Jean Louis Legare Regional Park and, brought the most beautiful golf course in all of Saskatchewan to it, too. The golf course has become one of the most memorable and most beautiful places in all of southern Saskatchewan.

South Saskatchewan proved that Saskatchewan was more than just flat prairies, as the Big Muddy boasts rolling hills and the tree-lined Willow Bunch Park. Another tourist attraction is the St. Victor Petroglyphs. The mine didn't just bring tourism to Coronach, but also surrounding towns like Rockglen and its main tourist attraction: Rockin Beach. Willow Bunch's park and museum increased in tourism, Fife Lake's hotel is famously known for the greatest steaks in the area, Bengough's Drug Store, Ogema's train and history of the town brought people from all over. The Big Beaver

Rodeo and Aust's General Store are widely known across Saskatchewan and the rest of the world.

Mining brought so much to Southern Saskatchewan; tourism is just one of the good things. No one knows tourism better than Coronach's own, the 2017 "Saskatchewanderer" Andrew Hiltz: "Whether it's a round of golf at Willow Bunch or climbing to the top of Castle Butte, Southern Saskatchewan is

province to explore!"

one of my favorite places in the

The Poplar River Surface Rights Association

Ron Noble

Underground mining and agriculture went very well together in the early days of Coronach's settlement. Farmers sometimes ran a coal mine as supplementary business to their farming. But the last active underground coal mine ceased to operate in the province in 1955 with the electrification of rural Saskatchewan. Now the focus was on electricity production, largely produced by coal fired thermo-electric plants. And that, of course, in Saskatchewan was overseen by the SaskPower Corporation. The problem for areas like Coronach is that open pit strip mining requires the use of the same land as the farmer needs to produce food and make a living. It's a scientific principle that two bodies of matter cannot occupy the same space at the same time. In order for SaskPower to obtain all the land needed to operate a strip mining project into perpetuity, the government granted the right of expropriation to the power corporation, since electricity is an essential service. That gave great power to the government (and I don't mean electrical power).

When a mining/thermo-electric power plant was announced for Coronach in the mid 1970s, land owners discovered that if you didn't particularly want to part with your land, but couldn't agree with SaskPower, you could get your mail one day and discover that part of your land base was no longer yours; it belonged now to SaskPower, and they would value the land, and a cheque would be coming in the mail. Such was the case for a few of the first landowners involved.

That fact, coupled with the mounting resistance to the environmental mess everyone had seen at the spent minefields near Estevan, led

as a stronger, unified body. A few farmers started and operated the group, and then in 1981, the Poplar River Surface Rights Association (PRSRA) was incorporated with a board elected by their members. Early directors used their own land as security for start-up funds. The objectives were to "obtain

to the formation of a centralized group of landowners to deal with the issue

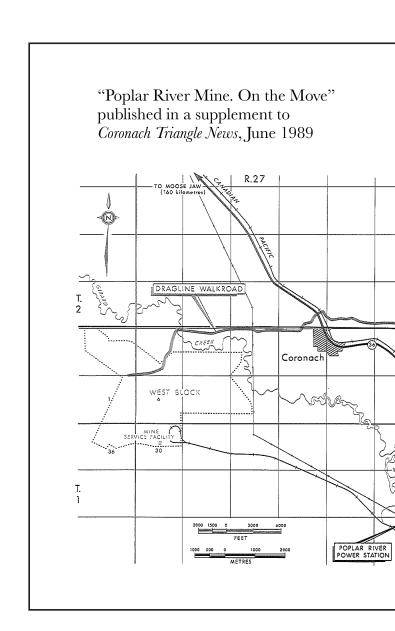
and distribute information relating to various matters of land acquisition, compensation for the same, options for relocation of farmsteads, residences, etc. Also, matters became necessary to settle damages to land and crops used in seismic activity, dam construction, and high voltage transmission lines. A common policy would apply to all acquisitions that would be fair and equitable." A lawyer would be retained for the common representation of its members, and the funding for the association would come from a royalty from the sales and claims of the membership.

A volunteer ten-member board has led the association well for 36 years to date. Over time, issues have evolved which needed attention, such as: salinity from the dam, fly-ash from the stack at the power plant, water replacement for wells affected by dewatering of the coal which forms the base of the aquifer of the local farm wells. Also, roads were cut off by the mine pit and mortgages and land use caveats had to be removed at cost to the landowner. In some cases, farm size was reduced to an uneconomic remainder and compensation had to be paid. Sensitive crown lands in the Big Muddy Badlands which had been protected by the Wildlife Habitat Protection Act were released by the government. This was challenged in court, which led to a reduction in the size of the intended project. Since SaskPower is a crown corporation, it does not pay land tax, so as much as 25% of the municipal tax base would be lost. An agreement was reached after negotiations with SaskPower for tax to be paid on the value of the mining equipment to account for this loss to the municipality.

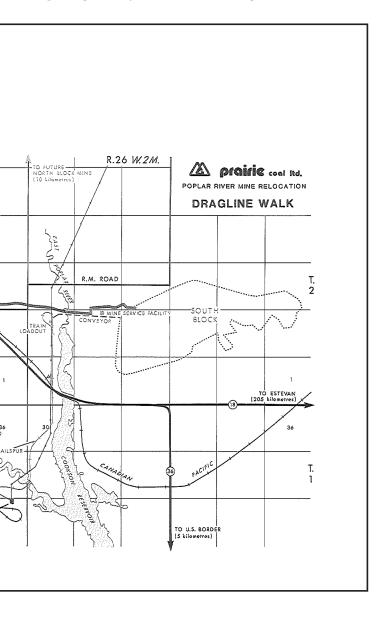
Probably the greatest achievement of the PRSRA is the compilation of the Reclamation Guidelines for land. Those who have seen the mess left by strip mining prior to this project will agree the need was there to implement such guidelines. The Poplar River Mine does a good job of reclamation, and today reclaimed land is useful for forage production, and is beginning to sell land back to local agricultural producers. These guidelines were some of the first to be developed in the country, and reclamation has now become compulsory in all new mining projects.

In its early years, the mine was owned by SaskPower, and when there was reluctance to accept the authority of the PRSRA, an access road to the power plant was cut off by vigilante action. Since then, negotiation has become the preferred method for working out difficulties. In the 1980s, SaskPower sold the mine and it became privatized. A number of mining companies have operated the mine over the years. A good working relationship has been established between the PRSRA, SaskPower, and the various mining companies. The community values the industry the power station and mine provides for this area, and would be ready to stand up for

coal production. This community would be the first to support Saskatchewan's position on developing "clean coal technology," rather than the coal moratorium proposed by Canada's federal government. Getting "power to the people" is the job of SaskPower, aided by a surface rights association.



Ron and his wife, Sandy, farm and ranch north of Coronach with their son, Joel and his family. At present, the 3rd, 4th and 5th generations of the Noble family farm are living on the homestead, relocated in 1994 from its original site, which has since been mined. Ron has been a member of the PRSRA since 1990, and currently serves as its Vice President. Ron's uncles also ran an underground mine in the early days of homestead settlement in the area, and Ron remembers exploring some of the old mines during his childhood.



A Change for the Better? Perspectives from the Town of Coronach

Sharon Adam, with contributions from past and present town councillors and mayors, and Coronach residents.

With any change, there is always a certain amount of apprehension and concern. In the late 1970s, and early 1980s the news of a coal mine and power plant coming to the small, quiet farming community of Coronach, Saskatchewan was no different. There were those who thought the worst, and those that were optimistic and positive about the opportunities that lay ahead for our community.

In the eyes of the "town forefathers," there were many benefits to the arrival of these industries. An influx of people, to the tune of over 1400, meant the need for increased infrastructure (water, sewer, paved roads), housing, schooling, and of course, retail business. This provided its challenges at the time with respect to how quickly things needed to happen, but it has all been to the benefit of the community.

The rapid growth included: two grocery stores, a western wear store, pharmacy, industrial/automotive store, mechanics, dentist, doctor, hospital, optometrist, two gas stations, two financial institutions, an accountant, and a ladies' fashion store, to name a few. Coronach offered everything a family needed and was the perfect place to raise and support a family.

We welcomed the addition of a new sports complex, complete with a four-sheet curling rink and outdoor swimming pool. It has been the hub of our community since its inception (with everyone coming together to build the facility) to today; when the aging structure recently needed some upgrades and attention, our active volunteer community has once again banded together to give it a facelift. There was always wonderful support from the mine in the way of equipment and manpower for digging new garbage pits, levelling out school grounds, or whatever else was needed. We came, we banded together, and we worked hard to sustain this community and make it a welcoming place to visit and live.

However, there were some downsides to the "coming of coal" to our community which have just come to light in recent years. The population of the town is currently declining—we started 2017 with approximately 700 people. Keeping all the retail businesses viable is a challenge, and we have lost many retailers. The majority of the jobs at the plant and mine are now being held by local workers. There is no influx of new people and growth.

We have also lost our doctor and hospital, though we still maintain a care home for our seniors. The aging infrastructure is in need of some major repairs and/or replacements, and the current council is struggling in finding a creative way to maintain infrastructure with a decreased tax base.

Thanks in part to the coal industry, many memories and long-time friendships have developed here...

With the looming reality of the power station reaching the end of its life cycle (which one would anticipate would lead to the closure of the mine), this community is uncertain what its future holds. However those of us who remain will continue to do what we can to keep our community alive, thriving and a great place to be! Thanks in part to the coal industry, many memories and long-time friendships have developed here, and that is something that can never be taken away.

Sharon and her husband, Keith, moved to Coronach in 1982 and raised their three children here. Both Sharon and Keith work for SaskPower at the Poplar River Power Station, as does one of their sons, Brad. Sharon has been on Town Council since February, 2016. She thanks all the individuals whose input helped shape this article.

The Benefits of Coal for the Rural Municipality of Hart Butte No. 11

Don Kirby

During the early years of settlement in the area, coal became the main source of fuel for the farmers and ranchers to heat their homes and cook. There were several mines in the area allowing the farmers reasonable hauling distances, considering they were hauling by horse and wagon. The mines were privately owned and a source of income for the owners. Later, when the Poplar River Power Station and the Poplar River Mine were built in the area, the rural municipality gained other benefits.

Many young people became employed at the mine, enabling them to remain in the area and continue farming and ranching, as the paycheque helped support their families while they improved their farms. New businesses in the RM and town were established because of the influx of people, providing services locally, i.e. a tire shop and a welding shop, and several others.

The tax base increased in the municipality as tax is levied on the mine's equipment. Funds are used for better roads for employees to travel to work, and for the transportation of supplies to the mine and plant. These roads are enjoyed by all who live and work in the area.

Funding is also available to support many services in town that are used by both rural and townspeople. Recreational facilities have been built and upgraded, such as: skating and curling rinks, swimming pool, golf course, sportsgrounds, boating and camping areas, and a riding arena. Other services supported through grants from the RM are: the museum, the community hall, and many youth activities.

The coal project allowed many local people to stay and work at home and also brought in many new families who made this community their home. This allowed the school to grow and stay open and serve our rural children. More families mean more coaches and mentors for our children. The Health Centre and senior citizens' residences provide much needed services for all, with the added benefit of providing local employment.

The rural municipality employs several people on permanent and seasonal terms, and is able to offer competitive pay and benefits to them with the income that comes from the taxed equipment at the mine. The new RM office was built in 2012 by local contractors and is a testament to the future.

The mine and the power plant continue to provide employment for many of the men and women who live and farm in the rural municipality, enabling them to stay here raising the next generation of farmers and ranchers. Most of the jobs are permanent, but there are also opportunities for short term

The mine and the power plant continue to provide employment for many of the men and women who live and farm in the rural municipality...

work during shutdown and maintenance at the plant.

A resource we only use on occasion but appreciate very much is the emergency training that the employees and the power plant and mine have. Their expertise in rescue and fire fighting is available when needed, as well as heavy equipment when there is a field fire or other such disaster.

SaskPower and the various coal mining companies that have operated the mine over the years have cooperated with our local, municipal governments to make our community a good place to live and work.

Don Kirby was born and raised in the Coronach area on a family farm which he continues to operate with his son. He and his wife, Linda, raised five children on the farm, and also own and operate Country Flavor Bed & Breakfast, which provides accommodations for visitors to the area as well as for contract workers at the mine and power plant. Don was an RM of Hart Butte councillor for 38 years, and served as the reeve for more than a decade until he retired from the council in 2016.

SaskPower's Emissions Control Research Facility at Poplar River Power Station

With contributions from SaskPower

Coal in Coronach and other parts of Saskatchewan is not like other more widely used coals in many important ways. The lignite burned at Poplar River Power Station has a higher moisture content, produces more erosive ash, and releases higher mercury, CO2 and particulate emissions. Because of this, power plants burning Saskatchewan coal are designed differently from other power plants that burn more common coals, like the sub-bituminous coal burned in Alberta and much of the western United States. When Poplar River Power Station started generating electricity in 1981, SaskPower recognized that standard coal testing methods did not provide reliable results for Coronach coal. Since then, SaskPower has collaborated with coal analysis experts to develop methods that can provide accurate assessments of Coronach coal.

Reducing environmental impacts associated with coal-fired power plants has become progressively more important. Since the area around Coronach is dry, preserving the quality of the limited local water resources is a priority, and Poplar River has used several industry-leading practices to ensure that local water is not contaminated from the plant's operations. In addition to water preservation, emissions management has gained considerable attention.

Twenty years ago, the federal government decided to pursue limits for mercury emissions from coal-fired power plants. Although technologies available at the time could reduce mercury emissions from more widely used coals, like sub-bituminous and bituminous coals, they were ineffective for emissions from Coronach's lignite coal. In order to develop a mercury-control technology suitable for lignite coal, SaskPower decided to install its Emissions Control Research Facility (ECRF) at Poplar River Power Station. Since other Canadian utilities have not faced similar challenges in controlling their mercury emissions, the ECRF is the only test facility of its kind in Canada. Indeed, there are very few facilities of its kind in the world.

The unique nature of the ECRF has attracted numerous leading emissions control researchers from around the world to work with SaskPower to develop mercury-control technology. This research led to developing a process which uses activated carbon to reduce mercury levels to match or exceed emissions controls achieved with other types of coal. In addition,

the cost to install this technology at Poplar River was \$100 million less than the original estimate. The ECRF's work resulted in SaskPower receiving the Environmental Stewardship Award from the Environmental Commitment and Responsibility Program of the

An activated carbon injection system was installed at Poplar River in 2009.

Canadian Electricity Association. Similar recognition has been granted by the Lignite Energy Council.

An activated carbon injection system was installed at Poplar River in 2009. After dealing with various issues associated with using a new technology, this system is now operating in compliance with the Canada Wide Standards for Mercury. Further improvements to the Poplar River system are planned to achieve even better performance. A similar system has been installed at SaskPower's Shand Power Station and, with the lessons learned from Poplar River, has been running reliably there.

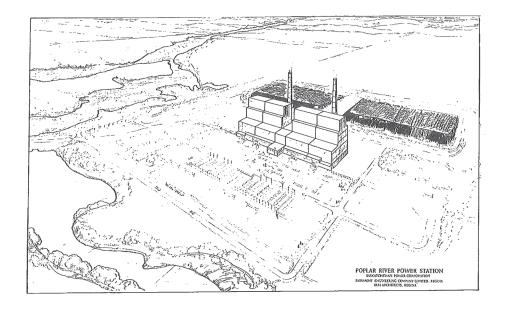
SaskPower and its coal supplier did extensive work at the ECRF to determine whether an effective activated carbon product for mercury control could be prepared from lignite coal. After several successes in this program, SaskPower's coal supplier partnered with a leading activated carbon producer, Cabot Norit Activated Carbon, to build an activated carbon plant at the Estevan Mine, near Bienfait, Saskatchewan. This plant, currently owned by Westmoreland Coal Company and Cabot Norit Canada, now supplies all the activated carbon SaskPower uses for mercury control.

Work is currently in progress at the ECRF in Coronach to develop technologies to further improve mercury control at SaskPower's generation facilities. ECRF staff are working with research personnel from SaskPower's activated carbon supplier to demonstrate the effectiveness of newly developed activated carbon products for mercury control. A number of other advanced activated carbon products have also been tested at the ECRF. One recently completed test involved assessing mercury-control effectiveness of ash resulting from burning Coronach coal treated with a novel additive which is formulated to oxidize mercury so that it can be more readily captured. Controlling other emissions from Coronach coal is also being investigated at the ECRF. Coronach coal contains more ash material than most other coals and the resulting particulate emissions are more difficult to control. Tests are being conducted at the ECRF on a new technology that should make Poplar River's ash capture system more effective in removing particulate matter from the plant's exhaust gas. Nitrogen oxide (NOX) emissions can result in smog

formation. However, the chemistry of Coronach coal is not compatible with the most effective current NOX-control technology. SaskPower is working with its main supplier of power plant and emissions control equipment to deal with Coronach's coal chemistry issues so that large reductions in NOX emissions can be achieved.

The greatest challenge to continued use of Coronach coal is to ensure that carbon dioxide (CO2) emissions are controlled sufficiently to avoid potential threats resulting from climate change. SaskPower has addressed its CO2 emissions aggressively by installing the first full-scale CO2 capture system at a coal-fired generation unit in the world at its Boundary Dam Power Station. SaskPower is pursuing opportunities to further improve the performance of this system and is considering options for installing more systems at its other generating units in Saskatchewan. Testing at the ECRF can be done to support this work.

SaskPower's Emissions Control Research Facility has been operating at Poplar River Power Station since 2004, and has addressed several emissions control challenges particularly associated with lignite coal. This work will help SaskPower meet its emissions control requirements for as long as its power plants are operating. The ECRF is unique in Canada, and the knowledge gained from its operations have contributed significantly to research in this field, and to the implementation of new processes and technologies in the continuing efforts to reduce emissions from coal-fired electricity generation.



Poplar River Power Station Saskatchewan Power Corporation from the *Poplar Progress*, Coronach, April 1976

Land Reclamation and Environmental Stewardship at Poplar River Mine

Emily Jepson, Senior Environmental Planner, Poplar River Mine

Coal mining is a temporary land use and as such, reclamation is an important part of the mining process. The goal of reclamation is to leave behind an invisible footprint so that the land where the coal has been removed blends seamlessly into the undisturbed terrain.

The first step in the reclamation process is cover soil removal. This is done before the dragline uncovers the coal. The A and B horizons of the soil profile are salvaged and placed either in stockpiles for future use or placed directly on leveled land. The next step is leveling, when the draglines uncover the coal and spoil piles are left behind. These spoil piles are leveled to predetermined slopes. After leveling is completed, the topsoil that was salvaged from the first step is replaced back on the land. The topsoil is then cultivated, rock picked and seeded.

The majority of the land at Poplar River Mine has been seeded to a tame hay. The land that has been re-vegetated is tendered and local ranchers are able to bid on the hay parcels and utilize the bales for their private operations. The productivity of the hay parcels is tracked and after the land is proven to be productive, the land can be released from further reclamation by the Ministry of Environment.

New technology is also being integrated into reclamation. The GPS technology available on the dozers, which are used for reclamation, allows land to be leveled to pre-determined designs and slopes. Drones are also being used to track reclamation progress, provide detailed information on spoil profiles to aid in creating leveling designs, and can be used to provide volume details for cover soil piles.

The environmental aspects of a coal mine are also closely considered and monitored. Before a mine is developed, there is a complete environmental assessment that must be approved. The environmental assessment includes all effects the mine may have in regards to air quality, noise, hydrology, surface hydrology, soils and geology, vegetation, wildlife, fisheries, heritage sites, socio-economic effects, and also includes public consultation. All possible impacts of the mine construction, operational, and closure phases must be considered and have proper mitigation measures approved. Poplar River Mine has taken many steps to mitigate environmental impacts. Some examples are rare plant seed collection and transplants, archaeological digs,

wetland partnerships, and native prairie re-vegetation. Environmental monitoring is done throughout the site on a weekly, monthly, and annual basis and reported to the provincial government.

The reclamation process at Poplar River Mine has been ongoing

The reclamation process at Poplar River Mine has been ongoing since 1980, and has become a point of pride for our mining operations.

since 1980, and has become a point of pride for our mining operations. The reclamation process was innovative at the time the Poplar River Mine was established in the late 1970s, but has since become a required practice in all strip mines.

Emily Jepson grew up in Estevan and completed her Environmental Engineering degree at the University of Regina. Her dad has been employed at the Estevan Mine for 37 years, and Emily started in the coal industry at the Estevan Mine as a summer student for two summers, and later an engineering work term. After university she continued in the mining field and has been in her current position at Poplar River Mine for 12 years. She lives in Coronach with her husband and two sons.

Conclusion: Energy and Movement

Kristin Catherwood

While visiting the interpretive centre of a geothermal power plant in Reykjanes, Iceland, I noticed the following sentence on one of the text panels: "Energy is defined as the ability of any creation, alive or lifeless, to generate work, which means to move things or change their being." The line moved me, enough to write it down, enough to remember it. It came to mind while working on the Coal in Coronach project—the movement of coal is one of its defining attributes. Once cleaved from the earth, it is hauled on trucks, dumped in a hopper, crushed into smaller pieces, moved by conveyor belt, dropped into waiting train cars, shuttled down the track 18 kilometers, dumped into a containing facility, dropped again onto another series of conveyance belts that take it to be pulverized into a fine dust, until finally it reaches its final destination and its destiny—to be blown into the waiting inferno of the giant boiler. After all this movement, it works. And from this movement and this work, something vital is created: electricity. Power. The energy required to do so many other things—including, somewhat ironically, to power the giant machines that enable coal to be mined.

The creation of electricity is fairly simple in principle: burn fuel to heat water to create steam to turn the turbine to generate electricity. But to get to that ultimate reaction, a lot of work needs to happen first. In Coronach, the entire process happens from start to finish. Though a simple process in theory, it takes a lot of machine and people power to achieve this task 24 hours a day, 365 days a year.

Coal *moves*. And movement both requires and produces energy. Coronach is an energetic community, one where workers are commuting to their jobs at the mine, or the plant, day and night. A characteristic of many struggling rural towns is a sense of stagnancy, a lack of movement, a depletion of energy. One of the first things I noticed during my time in Coronach was that here the opposite is true; this is a place of energy and movement.

Coal has always meant movement. Steam produced from burning coal powered the earliest locomotives. These engines were designed at first to remove water from the deep underground collieries of the United Kingdom in the late 18th century—at that point, coal was necessary as a heating fuel. But the engines created to assist in its mining eventually revolutionized transportation and helped usher in the Industrial Revolution. The world as we know it today was built on coal. Coal has always been political. Something that powerful is bound to be political, and coal has almost always courted

controversy. From its earliest use, it has been criticized for its inherent dirtiness, and for the costs and dangers associated with removing it from the earth. As the world struggles to reconcile the current demand for

Industries and ways of life come and go. But heritage never ends.

energy with the movement towards renewable sources, coal has been 'caught in the crossfire', so to speak. Globally, coal production is being geared down in some places, and amped up in others. Here in Coronach, coal is still king, for now.

The coal industry in Coronach has not been without costs and consequences. The mine, though a temporary use of land, has displaced farmers and ranchers in the area. The power plant emits harmful smoke and fly-ash. Local residents have noted that pollution from the plant has lessened over time due to continuous efforts to reduce emissions, including the installation of a precipitator to collect fly-ash, the creation of the Emissions Control Research Facility, and the work resulting from that ongoing research. Coal always has been a dirty business, but in recent years, the word has taken on an even more negative connotation. Concerns about climate change, air and water pollution, and the desire to move to renewable forms of energy have painted coal in a bad light, and left communities like Coronach who rely on the industry feeling alienated. The Canadian government announced in late 2016 its intention to phase out coal-fired electricity by 2030. Though a difficult announcement (which has since been mitigated by the Saskatchewan government's negotiations to make some exceptions), Poplar River Power Station is already nearing the end of its lifespan. The plant is scheduled to be decommissioned in 2029.

At this writing, no one is sure what's next for coal in Coronach. Certainly, there's at least a decade left of full-time work, barring any unexpected changes. But after that, it is difficult to speculate on the future. Local community members are not under any illusions about the fate of Coronach should coal no longer be its main industry. With any industry, there is much change and difficulty when it begins, and just as much when it ends.

Industries and ways of life come and go. But heritage never ends. Though coal has been used in Coronach for a century and more, the ways in which it has been mined and the uses to which it has been put, have changed over time. Now coal in Coronach is once again on the cusp of change. While the coal industry may cease to exist in this area, its heritage will not. Whatever Coronach's future, coal has shaped its past and present, and the heritage of coal in Coronach lives on.

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Coronach Economic Development Board and Coronach Museum



REGINA SK S4P 0|3 (306) 780-9191 (306) 780-9190 info@heritagesask.ca ich@heritagesask.ca www.heritagesask.ca







