



Painesdale Mine & Shaft, Inc.

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Newsletter—Fall, 2016

The Champion Mine Water Source By John A. Sullivan, P.E.

In 1972 when I served as Hancock City Manager, I had the opportunity to visit the Champion Mine water source as it was the source of water for the City of Hancock and all other communities between the Champion Mine and Hancock.

The Champion Mine shaft house had an elevator that took us down to the third level of the mine where the piston pumps were operated by the miners/pump men. I think Ed Stoneman and Ron Paulson were with me for the tour of the water source, possibly others as well. There were at least two large piston pumps in use to pump the water to the elevated water tank at the ground surface. The operators were manually applying oil to the pumps.

We walked down a drift to climb up to the second level where the horseshoe tunnel had been carved into the solid rock and which was used to collect the water from the aquifer above. I recall the drift/tunnel being lined with perfectly cut poor rock piled neatly to make a wall in the drift/tunnel. I was told the rock had to be cut neat and piled such as to use as much poor rock as possible in filling up the voids underground, therefore less rock would need to be hauled to surface and wasted. Apparently it was cost effective to have the masons cut and place the rock in that manner rather than to place it in tram cars and haul it to surface and then handle it again as it would have to be moved to poor rock (waste) piles. It was obvious to me that the stone masons took pride in their work as the rock walls were laid

COPPER RANGE COMPANY DAILY PUMPING REPORT WATER WORKS PUMP			Date 1-1 1968		
3rd Level No. 4 Shaft Deane .			CR Form 2		
DAY SHIFT	PRESCOTT PUMP		REMARKS		
	Time Started	Time Stopped		No. Hours Run	
	6-00	1-15	7-15		
AFT. SHIFT	2-00	9-30	7-30		
NIGHT SHIFT	10-00	6-00	8-00		
MID-NIGHT SHIFT					
	TOTAL HOURS RUN	22-45			
PUMP RUNNERS	DAY	HRS.	NIGHT	John Johnson	HRS.
	APT.	HRS.	MIDNIGHT	R. Bonnemus	HRS.

A daily pump report from the days when Champion #4 was used as the water source.

dry with no mortar and resembled the walls of the mine rock buildings in Calumet that C & H Mining Company had built for their Administration and Public Library buildings.

I recall having to get on my stomach to crawl through a narrow opening in the solid rock to get to the horseshoe tunnel. I was not comfortable with this crawling experience through the narrow passageway. As I recall the distance to crawl was only two or three feet. We then entered the Horseshoe shaped tunnel. We had put on knee high boots in preparation for walking in the tunnel. The tunnel was about six or seven feet wide and about seven feet high as I recall. It was about 1500 feet long and shaped like a horseshoe. In the roof of the tunnel two inch diameter pipes had been drilled into the gravel overburden above the solid rock. The pipes were spaced about every ten feet and each had a valve on the end for control purposes. Most to the valves on the pipes were open and water was pouring out of the pipes onto the



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The Champion Mine Water Source

Continued

floor of the tunnel. The tunnel was sloped to allow the water to flow to one end of the tunnel at this second level where the water flowed by gravity into a stope (a mined out area) at a lower level and from there it was pumped with the piston pumps to an elevated water tank at the surface.

From the elevated tank the water would flow by gravity to all the communities from Painesdale to Hancock. In Hancock the water would flow into the distribution system and make its way into two concrete water storage tanks, one near the top of Quincy Hill located on the south side of what is now Ingot street and east of Zion Lutheran Church which was built in the 1990's, the second water tank in Hancock was on the East Hancock hillside just north of Terrace Park on the north side of Sampson Street.

I was told that the Champion Mine water source was discovered by accident in the late 1920's during the mining operation. The water initially interfered with the underground copper mining operation and had to be pumped to waste. At that time Hancock was getting its potable water for domestic

and fire protection use from a shallow well located near the shore of the Portage Canal several hundred feet east of Ingot Street. The water was poor quality. Houghton was getting its water from springs on the Houghton west hillside of the community, west of Old M-26 in the vicinity of the BHK Headquarters building and the adjacent hill side to the west and south which is an area now developed with homes. Houghton would collect the spring water into large concrete surface holding tanks and pump the water into the water distribution system and into upper elevation hill side water tanks in the community. The water was not good quality and was subject to possible surface contamination.

An engineering report was commissioned by the Copper Range mining company and prepared by McNamee, Porter and Seeley Consulting Engineers of Ann Arbor, Michigan for the purpose of determining the feasibility of collecting the Champion Mine water for distribution as potable water to the communities from Painesdale to Hancock.

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Restoration Project

By Sherri Lewis, Secretary



Our major restoration project this year was to make the Captain's Office handicap accessible. With a grant of \$2000 from the Keweenaw National Historical Park, along with guidance as to the appearance it should have to be as historically correct as possible, we were able to accomplish this goal. The Painesdale Mine & Shaft paid \$6950 for our share of the project. We would like to thank Kurt Leuthold for his continued financial support of our organization and input on the project. The project was done by Dale Johns Construction, a construction

company located in Calumet MI. There was also some maintenance of the grounds around the building and new grass seed put down. All of our three buildings are now handicap accessible.

Projects for next year include window repairs, replacing and fixing doors, work on the shaft-house foundation, and some work inside the shaft-house to repair erosion. We appreciate all of your donations to keep our buildings safe and sound.



The Champion Mine Water Source Continued

The engineering report determined, as I recall, that there were 2.1 million gallons of water available on a daily basis from the Champion Mine and the quality was good.

Arrangements were made by the Mining Company to sell the water to the communities that wanted to buy the water and that included Hancock and Houghton. A pipe line to carry the water to the two communities was designed and built as a WPA project in the 1930's. The pipe line was designed to carry the 2.1 Million gallons that was available at the mine site. The water was readily available at a low cost to the communities as the water had been previously pumped to waste by the Mining Company and now there were customers to sell the water to. That worked out well for all parties concerned.

When the mine ceased mining copper the water was still needed by the community customers. At some point in time Adams Township created the Adams Township Water Authority which took over the responsibility of delivering water to the served communities. This required the Water Authority to operate those portions of the mine necessary to continue pumping the potable water. That meant maintaining the shaft house, the elevator that served the lower levels where the pumps were, as well as the piston pumps. There were pumps at a level below the third level that were used to keep the mine dry at the lower levels when the mine was operating and now had to be maintained to keep the lower level mine water from reaching the upper levels and contaminating the upper level potable water. Operating the

mine facilities to keep the potable water flowing was now a cost that was not incidental to the mining operation.

An engineering firm from Duluth, MN, was engaged to investigate placing wells into the aquifer above the horseshoe tunnel. However their drilling only produced moist sand, no large quantity of water. It was presumed that the overburden soil consisting of primarily sand and gravel in the water shed above the horseshoe tunnel was shaped like a bowl with the bottom of the bowl being over the horseshoe tunnel and the ground water was flowing in sheet flow along the bottom of the bowl to the point above the horseshoe tunnel. The many water pipes drilled into the bottom of the watershed's bowl from the horseshoe tunnel would serve to drain the bowl and provide the potable water.

In the early years the communities surrounding the Champion Mine got their potable water from springs until I suspect when the mine broke into the underground aquifer. That probably dried up the springs and required the Range communities to construct water distribution systems and utilize the Champion Mine potable water. This is speculation by the author.

In 1970 Michigan Tech was beginning to grow and on some days the amount of water coming down the pipe from the Champion Mine was barely enough to supply the communities of Houghton and Hancock. However, both communities had large water storage tanks. Therefore, in

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Church Restoration

Another landmark in Painesdale has recently been renovated. The Painesdale United Methodist Church on Iroquois Street was originally built in 1907. Recently, with the help of fundraisers and contributions, they completed restorations on the outside of the church. It is wonderful to see this Painesdale landmark so carefully restored.

We would like to thank the church for letting us store our hoodies and t-shirts in the storage area for the winter. Once the snow comes, we can't access the Captain's office in the winter.



The Champion Mine Water Source Continued

addition to the 2.1 million gallons available from the mine on a daily basis, there was also 1.25 million gallons in storage in Hancock when their ground level water storage tanks were full, and 1.0 million gallons in Houghton's two ground level water storage tanks when full. Keeping the water storage tanks as full as possible in the two communities was a balancing act that was performed daily by regulating valves in both communities, independent of one another. Keeping the storage tanks full was especially important for firefighting purposes.

In 1972 the cities of Hancock and Houghton started planning and seeking alternate water sources as it appeared that the Champion Mine source did not have enough water for the future growth of the two cities. In addition to the Champion Mine source, the alternate sources for water included wells in Houghton at the Isle Royale Sands, the old Hancock wells supplemented by a water treatment plant for the well water, and Lake Superior as a water source which would require a water treatment plant.

The two cities created a Water Study Committee to review the alternates, as several engineering reports discussing the alternates were available for review. Hancock appointed Professional Engineers Robert Hitch and John Sullivan, and Houghton appointed Professional Engineer Charles Telin and Civil Engineer Ray Kestner. The four appointees selected

Edmund Vandette, a Social Sciences Professor at Michigan Tech and a member of the State Board of Education, as the fifth at large member. The unanimous recommendation of the Water Study Committee was to use Lake Superior as the water source. That source would include a new water treatment plant on the east side on Bear Lake with a water transmission main in the County Road right of way to the top of Quincy Hill in Hancock where a two million gallon water tank would be constructed to serve the communities. The water for the Range towns could be pumped to the higher elevations.

The Houghton City Council accepted the recommendation and the Hancock City Council decided to put the question to an advisory vote of the people. A Special Election was held in Hancock for that purpose and the Lake Superior Water Source, the Committee's recommendation, was accepted by a vote of the electorate 53% to 47%. However, the Hancock City Council by a four to three vote, decided not to accept the advisory election vote and started to negotiate a water contract with the Adams Township Water Authority whose members included Cliff Paulson, Ferris Dennis and Helmuth Steinhilb. The Adams Township Water Authority successfully lobbied the majority of the Hancock City Council whose decision was to stay with the Champion Mine Water Source.

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Tour Report By Sherri Lewis, Secretary

Thirty three people toured the buildings within our site so far this year. Tour season will end as soon as the snow makes it inaccessible. People who toured came from Minnesota, Illinois, Maryland, Arkansas, Michigan, Wisconsin, and Indiana. When we give a tour it includes the inside of the shaft-house, the hoist house, and the Captain's Office. The Captain's Office contains records, reports, and pictures. It also has the old office equipment that was used when the mine was in operation. The shaft-house and hoist house are left "as is" at the time it closed. Many people say how it is like stepping back in time. If you are interested in tours call Sherri Lewis at 906-231-5542. Tours are by appointment.



Pay checks from 1930. When people come for tours, they can look through old pay checks.

The Champion Mine Water Source Continued

The City of Houghton, realizing there was not enough water at the Champion Mine to also accommodate Houghton's proposed growth, decided to pursue a well field at the Isle Royale Sands. Test wells were put down and the quantity and quality of the water was acceptable to the City and State, therefore, the City of Houghton constructed a well field, a pumping station and a new water tank in a higher elevation of the City.

Mike Drewyor, P.E. ,who was employed by Hitch Inc in the 1990's, informed me that in the 1990's Adams Township investigated the feasibility of drilling a well from the surface to intercept the horseshoe water tunnel. Ed Charles had the mine underground mapping and worked with Hitch Engineering to locate the spot to drill from the surface into the horseshoe tunnel. A six inch test well was drilled to confirm the horseshoe tunnel location. Subsequently three wells were drilled into the horseshoe tunnel and test pumping confirmed that 2500 gallons per minutes could be pumped out of the horseshoe tunnel using the new pumps. A pump house at surface and a new elevated water tank were constructed. The shafthouse and mine operation were no longer necessary to deliver potable water to the communities. The piston pumps and related equipment were brought to surface. The pipes in the horseshoe tunnel were opened to full capacity and the horseshoe tunnel was sealed at both ends to prevent the mine water, when and if it rises

to that second level, from contaminating the potable water. The lower level mine water was no longer being pumped to waste to stop it from reaching the upper levels of the mine. Mike indicated that the lower levels of the mine apparently did fill up with water and it eventually came to surface in Baltic at a lower level than the horseshoe tunnel.

New Lifetime Members

The following became Lifetime Members of PM&S this year:

- Jim Fruehauf
- Arlen & Judy Juntunen
- Evelyn M. Lishinski by Audrey Peterson
- Elizabeth Trevorow Mallett
- Herschel E. Nantelle
- Sean & Tina O'Connor by Frank S. Carlton
- Matt Russell & Nanette Schulte
- Robert J. & Susan M. Steinen
- John Vettori Memory by Emily Cowling Vettori

The complete list of Lifetime Members will appear in the next Newsletter.

Become A Member/Donations

Name: _____

Email: _____

Address: _____

\$10.00

Yearly Membership

\$100.00

Lifetime Membership

\$_____

Other Donation

Please make checks payable to:

Painesdale Mine & Shaft, Inc.
PO Box 332 Painesdale, MI 49955



What You Are Telling Us By Anton J. Pintar, Treasurer

We often receive comments from our members on their family ties to Painesdale, Copper Range, the Champion Shafthouse and the Range Towns. We share these as memorials to the many everyday people who built, lived in, worked in, and died in the towns of Painesdale, Atlantic Mine, South Range, Baltic, Trimountain and Toivola. If you have comments to make, please send them to us and we will put them in future Newsletters.

"My mother has been a member of [PM&S] for several years, I believe. She now is up in years but thoroughly enjoyed when I found your Summer 2015 Newsletter and brought it to her. We have read it over and over and at this time I would like to make a Life Membership contribution in her name [Evelyn M. Lishinski]."

Audrey L. Peterson, Halletsville, TX

"Richard Lyle Robertson's grandfather, Alexander Robertson lived in Painesdale, from 1910 until about 1914, during which time his first three children were born.

The 1910 Census gives Alexander's home as Adams Twp, Houghton, MI working for Champion Copper Co. as a Steno.

Alexander was born in Calumet of Scottish immigrants, and married Bertha Richards, of Cornish Descent, who was also born in Calumet. The three children born in Painesdale were Bertha Lyle Robertson 1910, Gordon Edward Robertson 1911, and Norman Arthur Robertson 1912."

Richard L. & Nancy S. Robertson, North Branch, MI

"On June 29th Sherri Bonneau [Lewis] took John Beckius, myself, and family on a tour of Shaft#4. It was very worthwhile as my grandfather, Peter Steinen, was surveyor there and worked for 52 years with Copper Range Mining Company until he retired in 1960. He was also Adams Township supervisor for the last four years of his life.

As my parents, Jim and Mary Steinen, were lifetime members; I and my wife Susan are joining. Please find attached our check along with the membership slip."

Robert & Susan Steinen, Abingdon, MD

"Thank you for what you are doing. It is so important to preserve the history of our past for future generations. I have given several friends & family members tours of the grounds from the compressor house ruins to the dry house. I tell them stories that I have learned over the years from sources like your newsletter along the way. Like where the train station was that dropped off the kids to get to school, climbing

up the long hill. When I retire, I could be a volunteer tour guide with all the knowledge I've acquired over many years. Please keep doing what you are doing."

Jim Fruehauf, Fond du Lac, WI

"I want to let you know how much I enjoy the Newsletter, the stories and what ever news you have.

I also have some connection to Painesdale. My Grandparents lived there (Charles and Emily Noye). My father (#7 child) was born in one of the Company's houses on Iroquois St. His birth date is July 2, 1913. I had a chance to see the house that he was born in before it was torn down. My Aunt Emily Noye (oldest sister of my father) said she worked in the Company Dining Hall when she was a young girl. I still have family in the U. P. near Calumet."

Nettie McMullen, Brooklyn, MI

"Enclosed is my check in payment for a Lifetime Membership in your organization. Hopefully will help in everyday expenses. Enjoy the Newsletter very much. Been a 'Yooper' all my 80 years, born in Iron River, now live in Crystal Falls."

Herschel Nantelle, Crystal Falls, MI

"Enclosed is a check for our yearly membership. We are both born and raised in Painesdale. My dad (Herb Maltz) was a hoist engineer (he started working for the Copper Range Co. as an oiler when he was 14).He mostly worked at #4Hoist. Dick's dad (Andrew Laru) was a miner.

How fortunate we are to have grown up in a simpler era and in a small town. As the years pass and we have lived away from Painesdale since the mid-50's whenever we travel up to our 'camp' in Misery Bay, we still consider it 'going home'. We would not trade our growing up years in Painesdale for anything.

We do miss the Jeffers High School reunions. What a great way it was to reconnect with old friends and classmates."

Dick and Marilyn Maltz Laru, Oak Creek, WI

"I really enjoyed reading the newsletter especially when I saw the picture of the gas station. Back in the 30's and 40's it was run by Joe Lencioni who lived with the Vettori's in Seeberville. It became quite a hangout for the young men in the neighborhood. My husband, John Vettori, worked in the mine until it got too much for him. We used to go down and watch him go down in the skip. Loved reading about old friends. My brother, Bill Cowling, worked there for quite awhile."

Emily Cowling Vettori, Madison Heights, MI

What You Are Telling Us Continued

"Thanks for the Newsletter! It brings back memories of Jeffers HS, etc. I graduated in 1956 and often wonder about my classmates. I especially liked the article about Allan Keto, who was in my class. Please give him my regards – he is leading an enjoyable & interesting life. If ever in NY or NJ – please call me [number available upon request] – my email is <mkolb14@comcast.net>."

Mavis Balagna Kolb, Little Silver, NJ

"I read in the latest newsletter that there is concern about the History of the Painesdale Water System. I hope this video I am sending answers those questions. It was a gift to my husband George "Archie" Hendrickson by Dovey Paulson. They had been friends since childhood.

I was a 1949 graduate of Jeffers."

Inez Niemela Hendrickson, Gwinn, MI

Note: The videotape has been converted to DVD by Red Jacket Media of Calumet. Although parts of the videotape are poor quality, we have learned very much about not only the water system but also the Hoist Building. Thank You, Inez!

"Enclosed is [my] donation ... My husband, an amateur photographer, likes to shoot pictures of rust, peeling paint, and fungus. We have incredible pictures of these in our house. I told him if he would come with me to visit the Keweenaw, I would make sure that he had access to plenty of that. I explored the Keweenaw many times on family vacations in my youth. When in my 30's, I dated a geologist for 5 years so the Keweenaw was about 5 trips a year with him. I have loved the place and have been away for 17 years with my moving to Indianapolis, Indiana. Always there was another place we needed to go for vacation and never was there time for me to return to the land I loved so much.

I used the website Copper Country Explorer to entice my husband with what could be photographed. And he fell in love with what he saw. Copper Country Explorer has a nice photoset from Painesdale on his website. My husband loved the look of it. Our vacation was last month with 8 days in the Keweenaw. Painesdale was on the "go to list" and I took responsibility for navigating us there. Dating a geologist did help me learn to find my way to mines and to navigate Copper Country. We expected to just be wandering around a bit and him shooting pictures of the shaft house. When we got there, my husband was in awe of the shaft house. But the best part, for me, was the three gentlemen pouring concrete at the Captain's Office. When they saw us wandering around and obviously appreciating what we saw,

they offered to let us into the Captain's Office to look around. That building is incredible. I'm a history nut. I tugged my husband in and his photography interest was piqued to new heights. We spent an hour in there reading your newsletters and photographing the building and immersing ourselves in the history before us. I found your cookbook and left money for it in the cashbox along with a small donation. I was impressed with the cookbook. Very well done how it interweaves history and recipes. I have since read it cover to cover. The Captain's office is a time capsule. Thanks for preserving it as it was. Someday, I hope to return to see the inside of the shaft house.

When we exited the Captain's office, the three gentlemen were taking lunch in the shade. They told me stories of their ancestors and the working of the mine and how the water supply worked and what the organization was trying to do to preserve what remained.

As we went to leave, I told the three gentlemen that I thought the preservation that was being done here was important. The industrial age was built on copper. There needs to be preserved for future generations an understanding of what it took to make the industrial age. And to not forget the people who did the day to day stuff that made it happen. I told the graciously nice gentlemen that I would send a donation when I got home. Here is my donation. Thank you for your efforts to preserve what remains. ... We plan to share our photographs of Painesdale with local photo clubs we are involved with to entice them to visit."

Nan Schulte (and Matt Russell), Indianapolis, IN

Cookbooks



Our cookbooks are still available and can be ordered by sending a check for \$15 plus shipping to Painesdale Mine & Shaft. You can also get them by contacting one of our board members, or stopping by Tina's Katalina restaurant or the Copper Range Historical Museum in South Range.

The cookbooks feature many recipes, including ethnic recipes from the many cultures that came to work in the mines. It also features stories of life in Painesdale and the range towns when the mines were open.

Newsletter Fall 2016

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