

The MUNDLING STICK

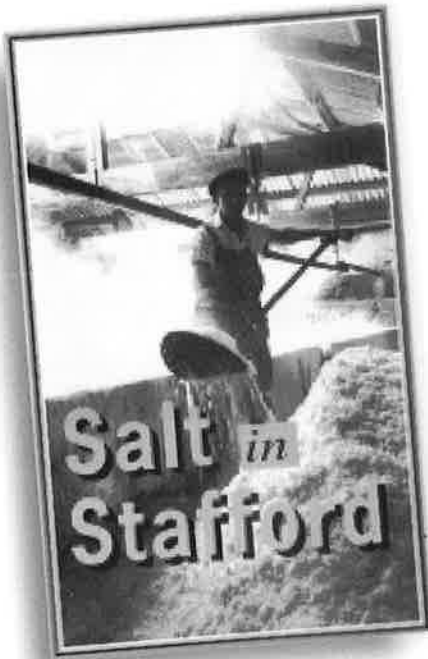


the LION
Salt Works
TRUST

Newsletter of the Lion Salt Works Trust: **SPRING 1997**

VOLUME 3 No. 1

Salt Works Contributes to "SALT in STAFFORD" video



THE Lion Salt Works now features in a video about the Stafford salt industry.

The video was produced by the Staffordshire Film Archive unit based at Staffordshire University, Stafford. Peter Kay and Robert Cartwright have produced an extremely interesting history resource describing the Stafford works of the Amasal group such as Mangers Crown Works and the Vacuum Salt Works at Baswich. All the salt works in Stafford have been demolished and many of the sites have been redeveloped. The project aimed to record the memories of those who worked in the industry before they passed into history.

Having discovered that the Lion Salt Works is now the only surviving

open pan works in the country Peter Kay approached us for permission to include a short sequence which could be inserted to complete their study. It was a bonus for him to meet the Chairman of the Trust, Mr R Hamlett who had once worked for Amasal and knew much of its history. Mr Hamlett was therefore formally interviewed as part of the project.

The video lasts 50 minutes and includes archive film of salt making, interviews with former salt workers, demonstrations of the tools they used and comments about what it was like to work in the industry. Though specifically related to Stafford the method of salt making was common with the practices in Cheshire. It provides an excellent insight into the process of open pan evaporation.

Copies of the video are available from the Lion Salt Works shop priced £11.99.

Salt Works in the pink

A GRANT from the Vale Royal Environment Network is once again helping the Trust reduce its running costs. By increasing the roof insulation at the Trust's office and display centre in the former Lion Inn our

annual heating costs will be reduced allowing more money to be spent on conservation, exhibitions and displays whilst making the building more comfortable to visit and work in. Its good for the environment as well. Thank you VREN.

Nick Davies takes delivery of 20 rolls of Owens Corning quilting supplied by CP Insulations (North West) who have a distribution centre in Winsford.



mundling stick n. ~tool used to pack salt crystals into the wooden tubs when making lump salt. This newsletter will likewise try to cram in all the latest information about the conservation and restoration of the Lion Salt Works.

SURVEY WORK continued in the Marston area during February with some pumping tests at the Lion Salt Works.

The work is a continuation of surveys being conducted within the area to assess the ground conditions which now exist after centuries of brine and rock salt extraction. The information gained will be helpful in designing foundations and strengthening works for restoration of the Lion Salt Works.

The work utilised bore holes drilled for Vale Royal Borough Council in 1988 when they were used to look at ground stability around the salt works. The bore holes had been sleeved with blue plastic pipe and remained open in case they should be required again. Despite some accumulation of stones and sediment two of the holes were suitable for the current tests.

The investigations involved removing brine from one hole and monitoring levels of brine in adjacent holes to evaluate the level of draw down around the bore hole. Brine removal only lasted during one day after which it was returned to the brine stream naturally.

During the test the site was dominated by three large tankers which held the brine. Work proceeded as planned with no misadventure, unlike during the work in 1988 when blow back occurred whilst the holes were being drilled causing gardens at the rear of the site to be flooded with brine.

Three large tankers stand ready to store brine extracted from the geophysics bore holes.

Taking readings as brine is pumped from underground.



KEY TERMS

TOP BED: The upper layer of rock salt is about 40m (150ft) below ground level at Marston.

BOTTOM BED: A lower level of rock salt some 8m (30ft) below the Top Bed. Not associated with a brine stream.

WET ROCK HEAD: The upper surface of the top bed dissolved by ground water to produce brine which runs over the surface, generally called a brine stream.

FLASH: Pond or lake formed by surface (fresh) water collecting in a depression created by subsidence.

Bore Hole Investigations

The diagram below depicts a cross section beneath the Lion Salt Works showing the various levels of marl and rock salt. Ground water meeting the Top Bed of rock salt runs over its surface dissolving salt to create an underground brine stream. Works such as Lion tapped into the stream and pumped brine to the surface for evaporation. The earliest shaft was a hand dug well which was described in 1899 as being 8ft by 8ft, timber lined and well puddled.

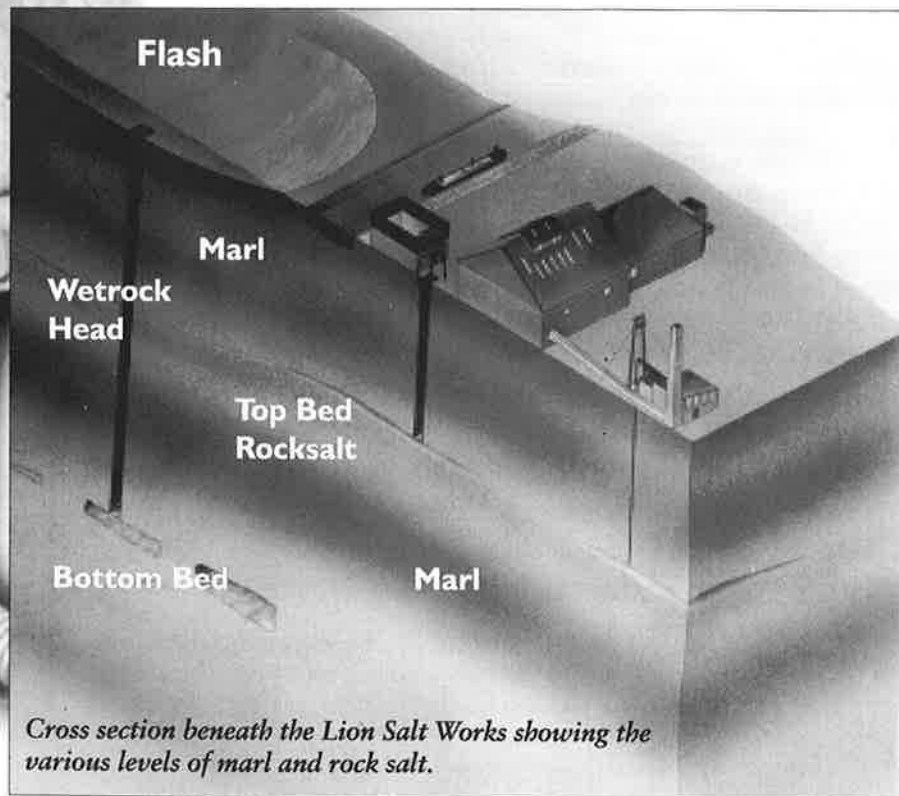
In 1937 a new bore hole was inserted this time by being drilled and using a 9 inch internal diameter iron pipe. This pipe is adjacent to the present location of the horizontal steam engine.

Also shown in the diagram is the location of the Adelaide Rock Salt Mine. The mine extracted rock salt from the deeper Bottom Bed. The salt here was drier but had to be protected from water pen-

etration from the surface and from the brine stream which might enter where the shaft passed through the wet rock head of the Top Bed.

The shaft was hand dug braced with timber baulks and lined with a metal tube where individual sections were riveted and bolted together. Three tube sections were salvaged during recent capping work and are currently stored in the Lion Salt Works car park.

The Adelaide Mine was extended to just beneath the Trent and Mersey Canal. The roof was supported by leaving pillars of rock salt. The mine collapsed in 1928 causing the strata above to move downwards, thereby creating a depression in the marl at the surface. This depression now collects surface rainwater as it drains from the surrounding farm land forming the flash we see today.



Cross section beneath the Lion Salt Works showing the various levels of marl and rock salt.

Diagram produced by Ian Shalliker and Carl Waine in 1993 whilst students of Technical Illustration at Mid-Cheshire College, Hartford Campus.

DATES for your Diary

Spring & Summer '97

set97*
exploring science
engineering
and technology

MARCH

SET '97 - Sunday, March 16th

Our first salt boiling day of 1997 will be during the 1997 Science Week. This event is part of a national programme organised by the British Association for the Advancement of Science.

Displays will feature equipment used to investigate bore-holes and geological strata around the Lion Salt Works. Sponsored by Geotechnics Ltd, River Lane, Saltney, Chester.

Monday, March 31st (Easter Bank Holiday Monday)

Salt Boiling Demonstration.

geotechnics

MAY

Monday May 5th

Salt Boiling Demonstration.

17 - 15th MAY

A national campaign to high-light work done by museums around the country.

Come and see what is being collected by the Lion Salt Works Trust.

MUSEUMSWEEK

17 - 25 MAY 1997

JULY

25 - 27th JULY 1st Marston Boat Rally

A week-end of events in Marston involving a boat rally, crafts and a celebration of Marston's association with salt mining, brine pumping and the Trent and Mersey Canal. Supported by the Salt Barge pub. Locals who frequent the pub have been collecting photographs of Marston to decorate the bar and restaurant. Visit the Lion Salt Works for more local history and demonstrations.



TRUSTEES

Trustees of the Lion Salt Works Trust are drawn from a wide range of backgrounds to help carry out the aims of the Trust. Following the retirement of two founder Trustees, Cllr Mrs Bolton and Cllr A Neil, the Trust welcomed John Szostek and Terry Cresswell as new Trustees. There are presently nine Trustees.

Mr R Hamlett, (Chairman) former Admin Manager British Salt.

Lady Rochester, Historian.

Mr J Szostek, Brunner-Mond & Co, Sodium Silicate Business.

Mr T Cresswell, British Salt, Director & Gen Manager British Stasal.

Dr A Todd, Worshipful Company of Salters.

Dr T Farthing, Consultant Engineer, formerly MDir IMI(Titanium).

Cllr Mrs V Frame, Vale Royal Borough Council.

Cllr A Hooton, Vale Royal Borough Council.

Cllr R Carey, Cheshire County Council.

OPENING TIMES

The Lion Salt Works exhibition is opened each afternoon between 1.30pm and 4.30pm by our site stewards.

New stewards are needed to help at the site, not just to receive visitors but also to help with maintenance of the building and grounds.

If you have a few hours a week please contact Andrew Fielding, Project Director. Call 01606-41823.

THE MUNDLING STICK *by post*

If you would like to have a regular copy of The Mundling Stick sent to you by post please send your name and address to Nick Davies, Project Assistant, Lion Salt Works Trust, Ollershaw Lane, Marston, Northwich CW9 6ES or telephone 01606-41823. Newsletters will be sent free of charge.

Cheques for donations should be made out to THE LION SALT WORKS TRUST. If you would like to provide long term support for the trust please ask for a covenant form.