Site Visit and Community Consultation Report

September 18-20, 2003

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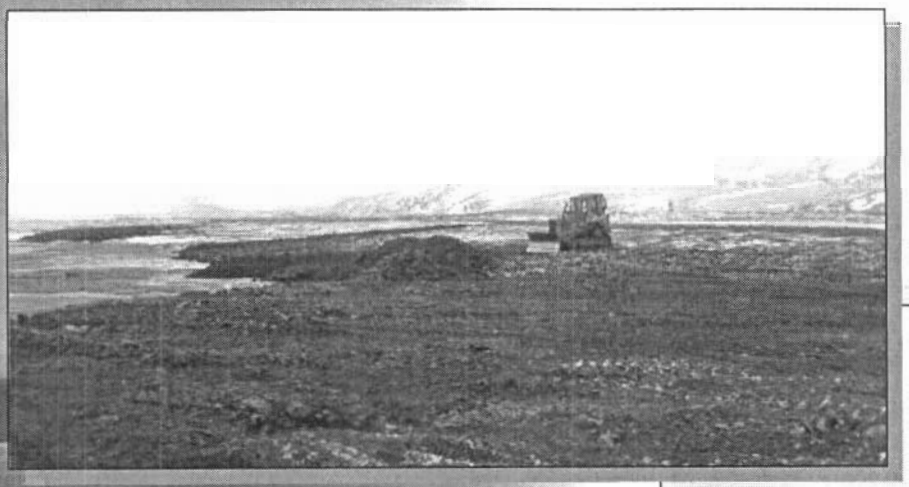

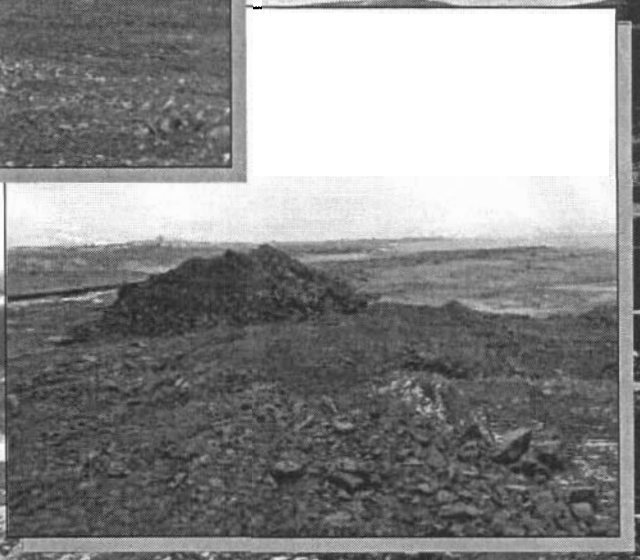

Nanisivik Mine and Arctic Bay

By:

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Nunavut Water Board

Introduction

Between September 18th to September 20th, 2003 Patrick Duxbury, Mine Reclamation Coordinator for the Nunavut Water Board ("NWB"), visited the Hamlet of Arctic Bay to hold a community consultation session to present information and answer concerns about the closure and subsequent reclamation of the Nanisivik Mine. A description of the public meeting held in Arctic Bay is presented in Appendix I of this report.

While in Arctic Bay, Patrick Duxbury, along with Arctic Bay's Community Liasion Coordinator, Levi Barnabas, visited the Nanisivik Mine site where they were taken on a tour by Site Manager, Murray Markle. As a full reclamation program has yet to be undertaken at the Nanisivik Mine, there was very little evidence of observable activity. Limited progressive reclamation activities have taken place at the mine since the NWB issued its July 11, 2003 approval of those activities.

Daily Log of Activities

Thursday, September 18, 2003

- At 14:00, Patrick Duxbury landed at Nanisivik Airport. He traveled from the airport to Arctic Bay. Mr. Duxbury met with Levi Barnabas to discuss and plan for the Public Meeting.
- At 19:00, Levi Barnabas and Patrick Duxbury held a public meeting in Arctic Bay.

Friday, September 19, 2003

- Levi Barnabas and Patrick Duxbury traveled to Nanisivik Mine to meet Nanisivik Site Manager, Murray Markle.
- After having lunch, the group toured the mine to see various mine components, which included the following: landfill; West Tailings Disposal Area; industrial facilities; concentrate shed and eastern mine workings (Oceanview, Area 14).
- Following the tour, which lasted about 2 hours, Levi Barnabas and Patrick Duxbury returned to Arctic Bay.

Saturday, September 20, 2003

- Levi Barnabas and Patrick Duxbury left Arctic Bay for Ottawa to participate in technical sessions concerning the Nanisivik Mine Human Health and Ecological Risk Assessment.

Nanisivik Mine

Background Information

The Nanisivik Mine is owned by CanZinco Limited, a division of Breakwater Resources Limited. The mine is located on the northern tip of Baffin Island in the Canadian Arctic, in the Territory of Nunavut. It is situated at approximately latitude 73°N and longitude 84°W, and is about located on the south shore of Strathcona Sound. During production, Nanisivik Mine was primarily an underground zinc-lead mining operation. The mine holds land leases held from both the Government of Canada and the Territory of Nunavut.

The mine is located approximately 25 km from the community of Arctic Bay and is linked to that community by a 33 km road. Travel outside the area is possible through the Nanisivik Airport which is capable of handling jet aircraft, as well as the deep water port located at the mine's dock area which is open during the annual ice-free season between late July and early October.

Advanced mineral exploration in the area began in the late 1950's. Development of the mine facilities took place from 1974 to 1976. Mining and milling commenced in 1976 and continued to the mine closure in September, 2002. Approximately 20 million tones of sulphide ore was mined and milled at Nanisivik over its lifetime to produce lead and zinc concentrate that was sent primarily to Europe.

The environment around the mine site is typical of the high arctic as is characterized by cold temperatures, low precipitation, continuous permafrost and largely barren surface soils, which render the mine area poor for vegetation coverage and wildlife use. It can be classified for those reasons as a "polar desert".

The terrain around Nanisivik Mine consists of plains that are surrounded by relatively steep high-relief hills rising out of Strathcona Sound. The surface topography is relatively steep and climbs from sea-level (0 metres) to as much as 650 meters.

The mine infrastructure is spread out and connected by all-weather roads. The infrastructure includes a docking facility and concentrate shed, milling complex, town site, tailings disposal area and both underground mine workings as well as some small open pits.

Visited Components of the Property

A map of the Nanisivik Mine property and surrounding area is provided in Appendix 2. The following text a general description of the visited mine components where some progressive reclamation or preparatory activities had occurred during 2003.

Tailings Line

During mine operation, process tailings were pumped via a 4 km heat-traced pipe towards the West Twin Disposal Area ("WDTA") for final deposition. The tailings line area was identified as a potential area of concern by Gartner Lee Limited in its *2002 Environmental Site Assessment*, due to a number of tailings spills which occurred throughout the life of the mine.

West Twin Disposal Area

During mine operation, the WTDA was the final resting site for process tailings. The WTDA was originally a small lake which provided sub-aqueous tailings storage. Due to capacity constraints, the WTDA storage capacity was increased in 1990 with construction of an internal dyke across the lake, which divided it into upper and lower storage areas. The upper portion of the lake became a surface tailings deposition area (sub-aerial) and it became the primary storage area for tailings. The lower portion served as a reservoir for water decanted from the upper area. Since the deposition of sub-aerial process tailings, the WTDA has become an environmental concern due to the fact that on several occasions during dry periods tailings blew off the WTDA, primarily towards the townsite in the direction of Strathcona sound. CanZinco attempted to prevent this by wetting the WTDA, as well as placing crushed shale over it.

Quarries

Nanisivik Mine operators have used shale aggregate for a number of purposes at the site. These include material for roads; cover material for the WTDA to prevent blowing of tailings; and for use in the landfill to cover layers. CanZinco renewed its quarrying permits in 2003 in order to begin extracting aggregate for progressive reclamation as well as for the upcoming reclamation.

Landfill

The landfill is located approximately 1 km west of the town. The landfill has been used for disposal of waste materials throughout the life of the mine. Domestic waste has been routinely burned to reduce volume. Waste materials are regularly compacted and covered with quarried shale. As waste petroleum products were historically deposited in the landfill, a significant environmental concern is the potential for those contaminants to migrate away from the landfill. To mitigate this potential problem, a soil berm at the

toe of the landfill was established that directs run off water to a hydrocarbon absorbent boom.

Observations and Discussion

Tailings Lines (Photos 1,2)

As the group traveled towards the WTDA, Murray Markle pointed out an area where mine employees had excavated soil which had been contaminated due to a tailings break during mine operation. CanZinco will keep the tailings lines intact until it has decided how it wishes to proceed with cleaning of the industrial facilities. Once the tailings lines are no longer of use they will be dismantled and probably placed either underground or on top of the WTDA prior to its covering.

West Twin Disposal Area (Photos 3,4)

At the WTDA, the sub-aerial tailings were being covered by a layer of recently quarried shale. Murray Markle noted that the depth of the shale layer being applied exceeded the rather minimal required layer to prevent tailings from being blown by strong winds. He thought that the excess material could perhaps be considered a contribution to the 1.25 m cover that has been proposed. Murray stated that he was apprehensive about sending heavy machinery over certain parts of the WTDA because of a unusually intense rain event in August had made areas of it mucky and possibly dangerous to work on.

Quarries

CanZinco had received quarry permits to work from Indian and Northern Affairs during the summer. The stockpiles were being established near the WTDA.

Landfill (Photos 5,6)

Since the cessation of mining and milling operations, the quantity of material being placed in the landfill has diminished. At the time of the site visit it was noticed that an application of crushed shale had been placed on top of the waste and some subsequent land leveling had occurred. This is a practice that has been occurring throughout the life of the mine. Some small piles of crushed shale were left at the periphery of the landfill, presumably for future waste covers.

General Mine Infrastructure

While there were no other observable progressive reclamation activities occurring at Nanisivik during the site visit, the group, however, toured around the majority of the site. The group drove towards the east side of the mine site and visited Area14, Oceanview and the East Adit. Along the route it was noted that some roads and culvert's had suffered extensive water damage due to the intense rainstorm that had occurred in Augus. Some repairs of roads and culverts were taking place. All major mine facilities, such as the concentrate storage shed, the mill and the townsite are

largely in stasis until regulatory approval is reached to commence with reclamation.

Conclusions

Minimal progressive reclamation work has taken place at Nanisivik Mine over 2003. It is expected that the facilities and sites of environmental concern will be addressed in the final Closure and Reclamation Plan expected in early 2004.

Appendix 1 - Community Consultation Report

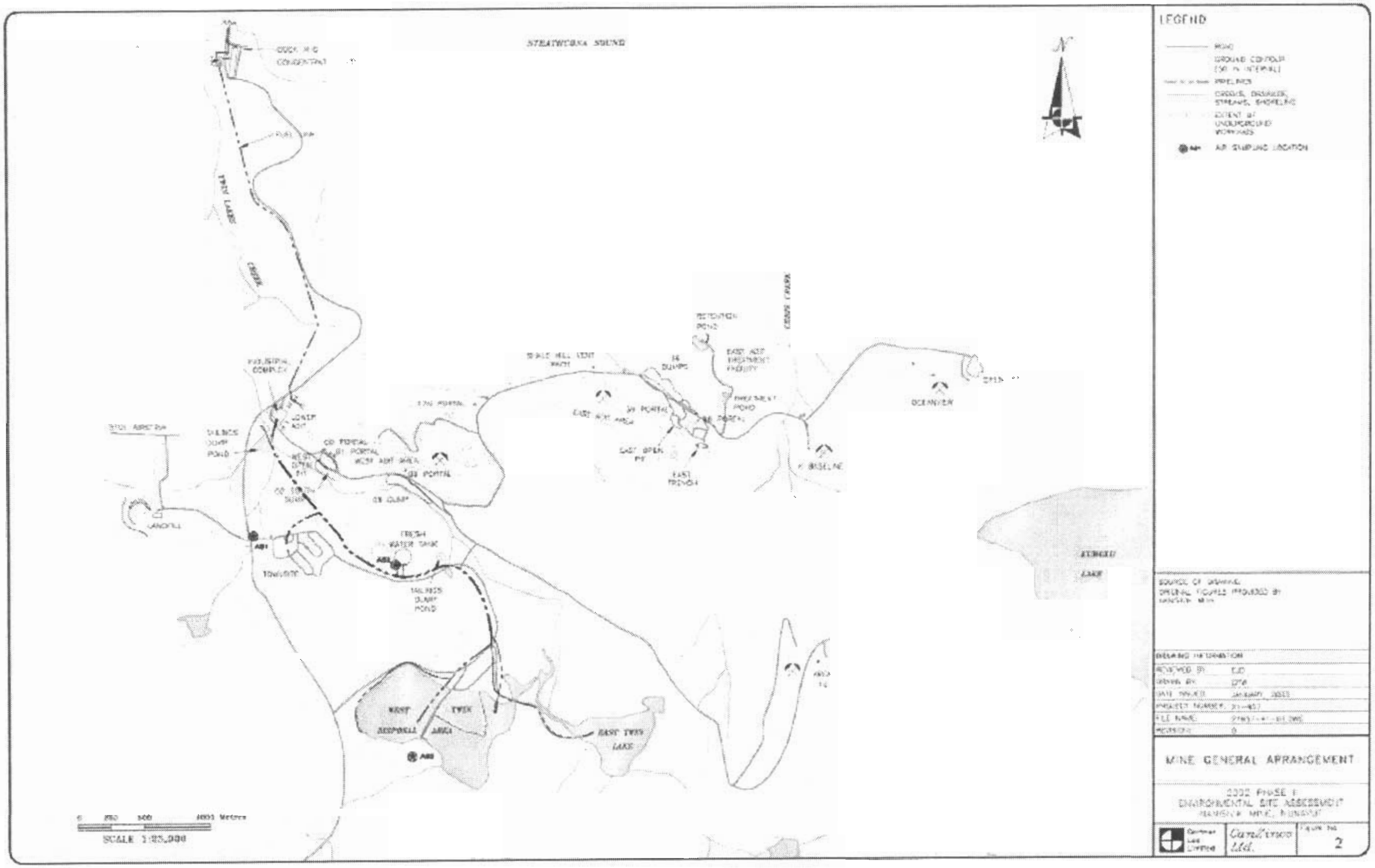
On the afternoon of Wednesday, September 18, 2003 Patrick Duxbury, NWB Mine Reclamation Coordinator met with Levi Barnabas, Arctic Bay Community Liasion Coordinator, to plan a public meeting for the purpose of sharing information with residents of Arctic Bay on mine reclamation efforts occurring at the Polaris Mine, as well as to update the residents on issues related to the closure and pending reclamation of the Nanisivik Mine. Levi Barnabas made arrangements for a sound system and refreshments table to be set up for the meeting. Due to a prior engagement, Mishak Allurut, who has been the regular interpreter for NWB meetings in Arctic Bay, was unavailable to work that evening. The NWB enlisted the services of Mary Tatatuapik to interpret the meeting in the absence of Mr. Allurut.

The public meeting began at 19:00 at the Qaggivik Multi-purpose Hall. Approximately 25 persons were in attendance. The meeting was opened and chaired by Levi Barnabas who gave a brief introduction and then presented items concerning socio-economic issues associated with the Nanisivik Mne closure. He described to the audience the purpose of the upcoming technical meeting in Ottawa on the Nanisivik Mine Human Health and Ecological Risk Assessment ("HHERA") that he was intending on attending.

Patrick Duxbury then began his presentation, which took approximately 40 minutes. The presentation was similar to a digital slide-show given in Resolute Bay on the Polaris Closure whose purpose was to share information on reclamation efforts with residents in that community. The Arctic Bay presentation was, however, delivered with the goal of sharing the basic concepts of northern mine reclamation with Arctic Bay residents. Wherever possible, parallels were drawn between the present Polaris Mine reclamation and the upcoming Nanisivik Mine reclamation.

Following the presentation, a short question and answer session was held. The audience was generally enthusiastic about what they had seen presented. Several persons commented that they hoped the Nanisivik Mine clean-up would go as well as what they had seen in the Polaris Mine photographs. A few questions on socio-economic issues arose and they were responded to by Levi Barnabas. The audience was asked if they were happy with the level of consultation they were receiving from the NWB and if they thought the newsletter was a good thing to continue with. Members of the audience said that they largely content with the NWB efforts to date and that they would like to have another newsletter published to update them on different aspects of the Nanisivik Mine closure. The meeting was adjourned at approximately 20:30.

Appendix II - Site Map of the Nanisivik Mine


STRATHCONA SOUND
TWIN LAKES CREEK
INDUSTRIAL COMPLEX
LANDFILL
TOWNSITE
FRESH WATER TANK
TAILINGS DUMP POND
WEST TWIN DISPOSAL AREA
EAST TWIN LAKE
EAST OPEN PIT
EAST TRENCH
RETENTION POND
OCEANVIEW
K BASELINE
LEGEND
AIR SAMPLING LOCATION
MINE GENERAL ARRANGEMENT
2002 PHASE I ENVIRONMENTAL SITE ASSESSMENT
2
SCALE 1:25,000

Appendix III - Photographs

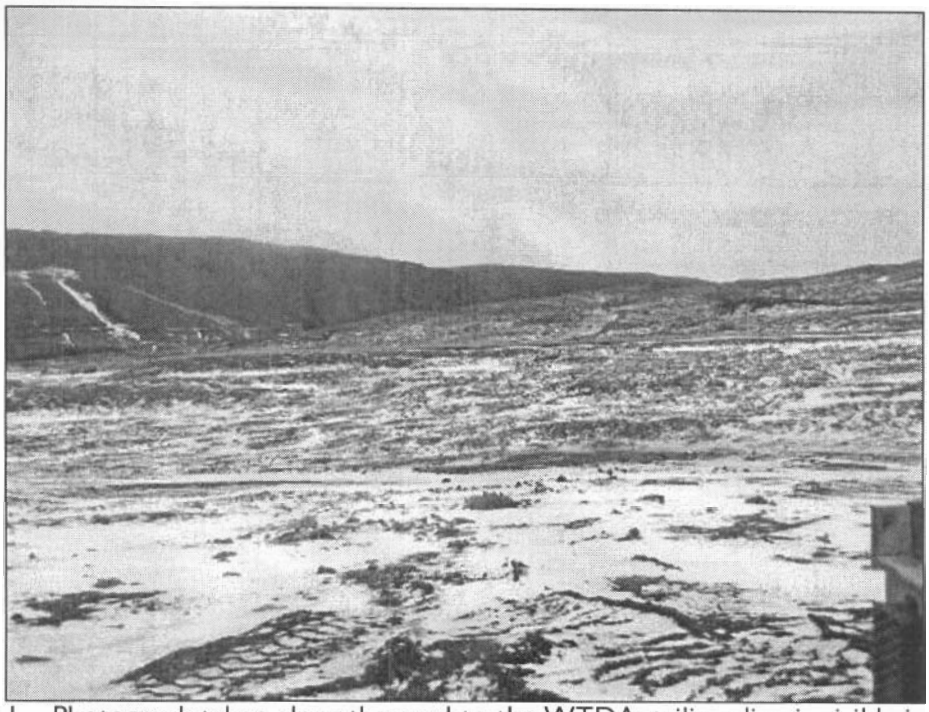


Photo 1 – Photograph taken along the road to the WTDA; tailings line is visible in background

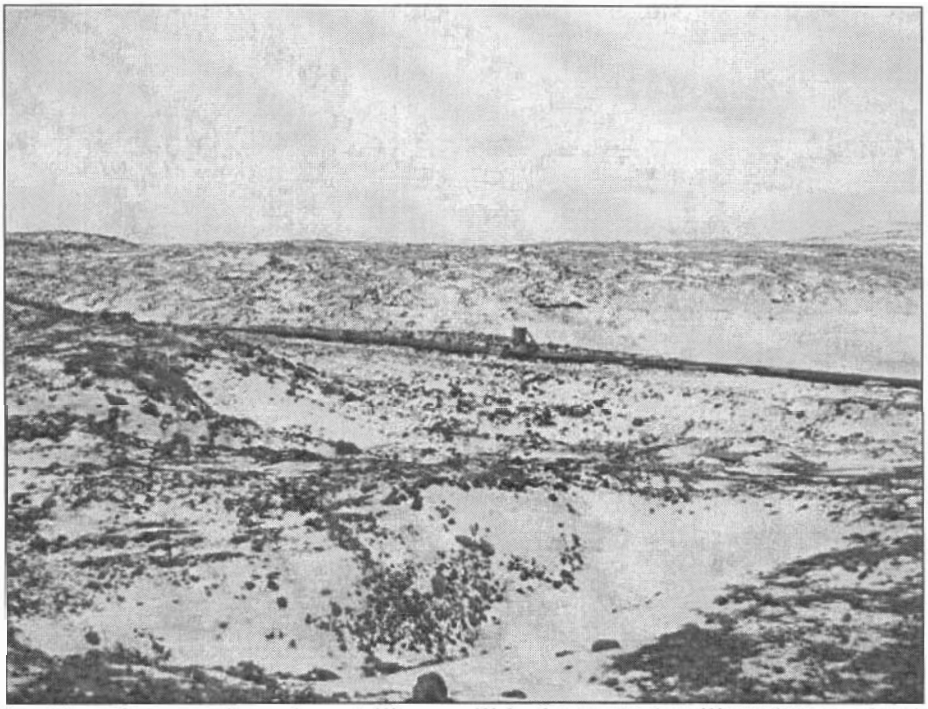


Photo 2 – Site of excavation where tailings spill had occurred; tailings line is clearly visible

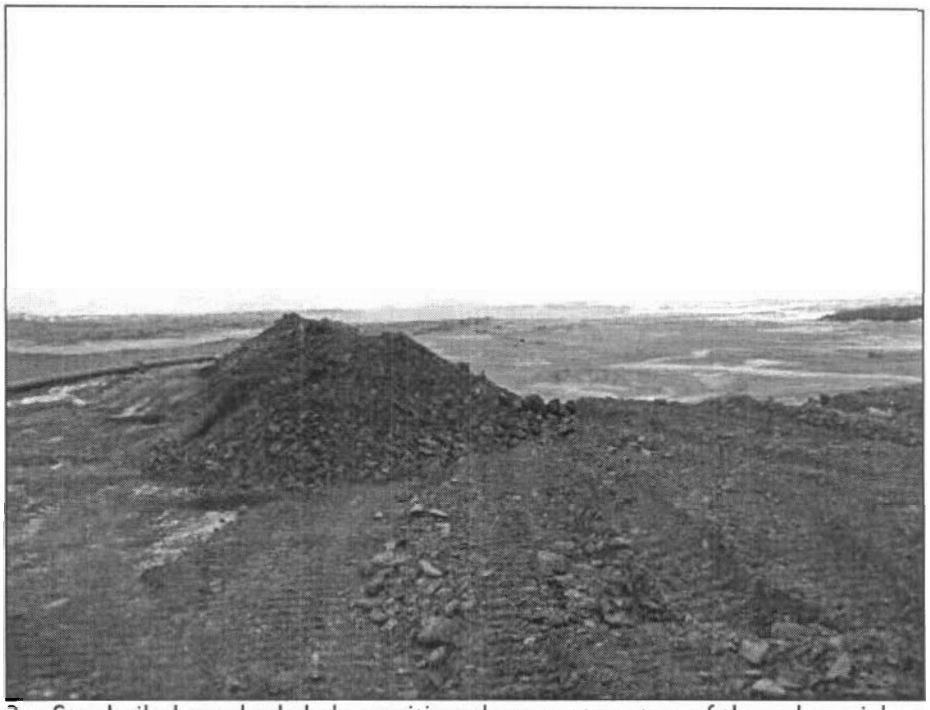


Photo 3 – Stockpiled crushed shale awaiting placement on top of the sub-aerial portion of WTDA

Photo 4 – Heavy machinery was placing crushed shale over WTDA, however due to wet conditions this activity had been temporarily halted.

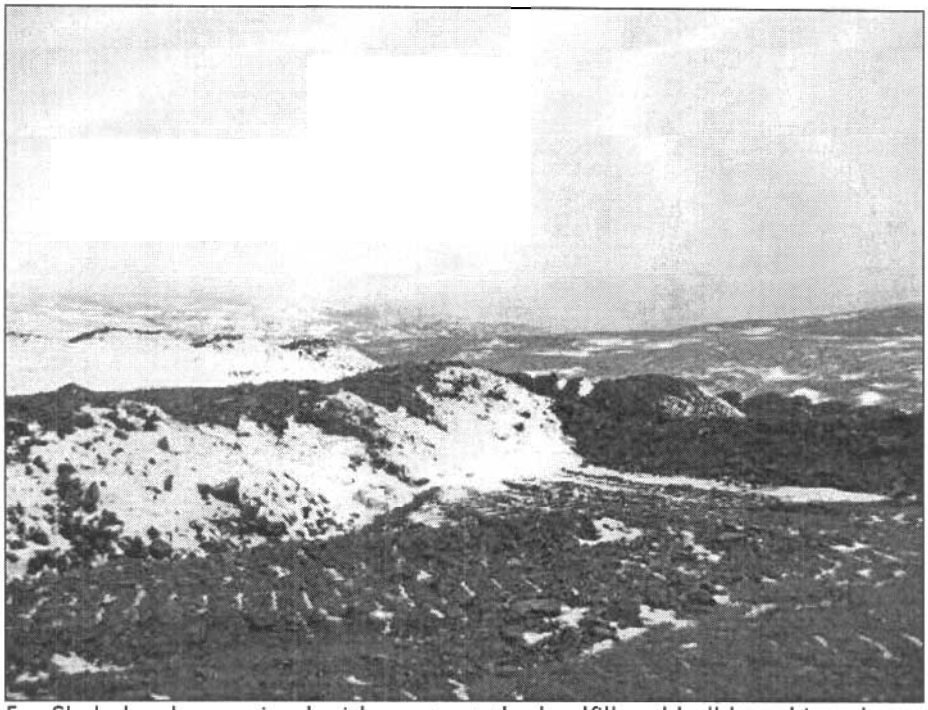


Photo 5 – Shale has been mixed with waste at the landfill and bulldozed into layers

Photo 6 – Landfill with fresh shale cover