

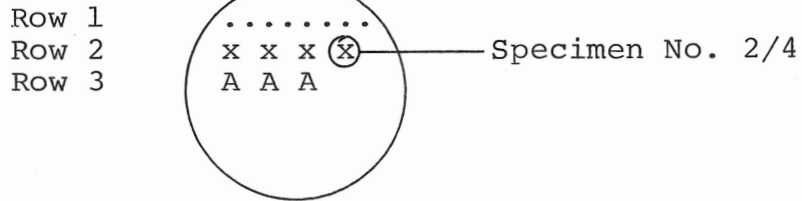
ARCO  
WEST MIKKELSEN BAY STATE UNIT #1  
ALASKA NORTH SLOPE

SCANNING ELECTRON MICROGRAPHS  
OF  
SELECTED RADIOLARIANS  
AND  
QUARTZ SAND GRAINS

Five (5) samples of ditch cuttings at 100' intervals between 10,700 and 11,200 were selected for scanning electron microscope (SEM) examination of radiolarians and quartz sand grains. Specimens were chosen from picked and unpicked foraminifera samples, examined in the SEM, and returned to separate foraminifera slides according to procedures described below.

A drop of dilute solution of polyvinyl acetate (PVA) in methanol was spread over a cover glass and allowed to dry, leaving a thin film of PVA. The cover glass was then mounted on an SEM stub with a carbon-emulsion adhesive. Specimens were arranged on the cover glass in rows with a picking brush. The stub was then heated on a hot plate to soften the PVA and allow the specimens to sink slightly into it. Upon cooling, the specimens adhered firmly to the cover glass.

Specimens were arranged on the cover glass in rows starting generally with spheroidal and discoidal forms and ending with conical forms. For reference purposes rows were considered to be numbered from top to bottom, and specimens within rows from left to right. Thus each specimen was assigned a location number in the form: row number/specimen number. The sketch below illustrates a typical arrangement of specimens on a cover glass.



The stubs were coated with gold-palladium in a sputter coater and placed in the SEM. Photographs were taken on Polaroid type 665 positive-negative film. Each photograph bears the well name, footage interval, specimen location-number and magnification. Most specimens were photographed at approximately the same magnification. In a few cases a specimen was photographed at a lower magnification in order to fit it within the format, and sand-grain surfaces were photographed at higher magnifications.

After completion of the SEM work, cover glasses, with specimens intact, were removed from the SEM stubs and transferred to labeled depressions in cardboard foraminifera slides. Specimens can thus be re-examined in the light microscope, using the location-number to find the specimen corresponding to a particular SEM photograph.

An attempt was made to provide a general overview of the range of morphotypes in each sample. However, preservation is poor in these West Mikkelsen Bay State #1 samples and, in many cases, the SEM revealed little or no detail not observable in the light microscope. Therefore, not all the mounted specimens have been photographed, particularly in the lower part of the studied range where down-hole repetition was prominent. A few quartz sand grains were

included with the radiolarians from one sample to aid in determining the depositional environment of the grains by detailed examination of their surface morphologies. Two of the sand grains showed excessive electrical charging in the SEM and could not be photographed.

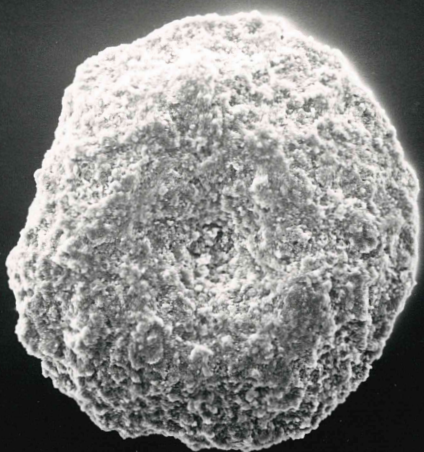
Prints of the SEM photographs obtained in this study are arranged in this notebook according to sample number starting with the highest sample.



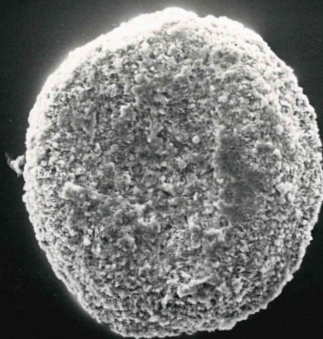
LIST OF PLATES

ARCO WEST MIKKELSEN BAY STATE UNIT #1

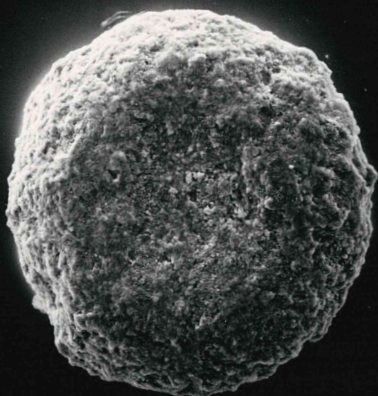
	<u>Plate(s)</u>
10,700 - 10,800'	1, 2
10,800 - 10,900'	3
10,900 - 11,000'	4
11,000 - 11,100'	5
11,100 - 11,200'	6, 7, 8



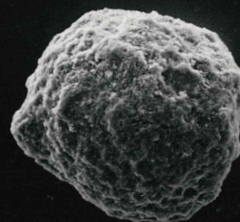
ARCO W. Mikk. Bay #1, 10,700-800' 1/5 200X



1  
ARCO W. Mikk. Bay #1, 10,700-800' 1/8 200X



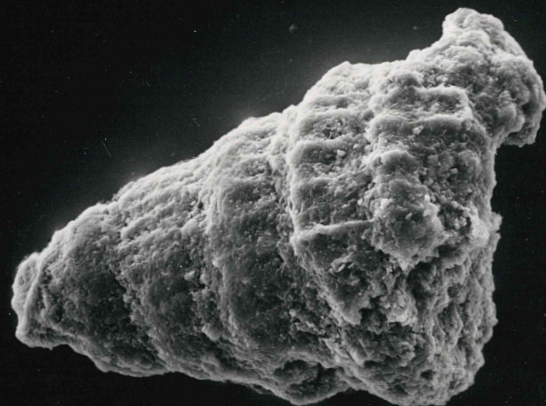
ARCO W. Mikk. Bay #1, 10,700-800' 1/2 200X



ARCO W. Mikk. Bay #1, 10,700-800' 2/5 200X



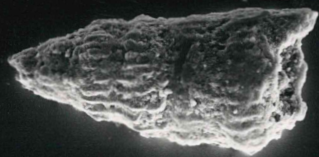
ARCO W. Mikk. Bay #1, 10,700-800' 2/7 200X



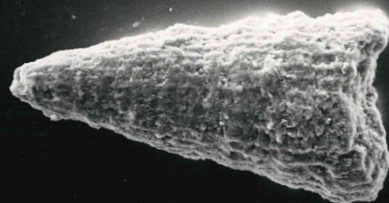
ARCO W. Mikk. Bay #1, 10,700-800' 2/7 500X



2

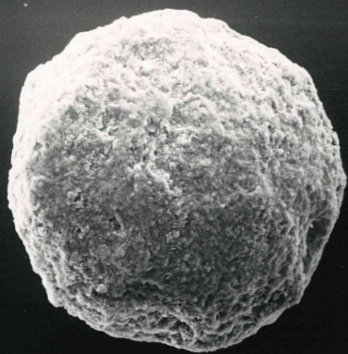


ARCO W. Mikk. Bay #1, 10,700-800' 2/4 200X

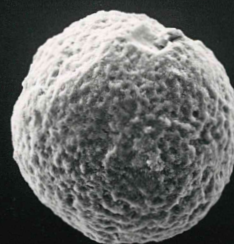


ARCO W. Mikk. Bay #1, 10,700-800' 2/3 200X





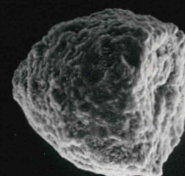
ARCO W. Mikk. Bay #1, 10,800-900' 1/5 200X



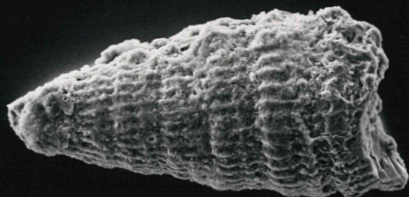
ARCO W. Mikk. Bay #1, 10,800-900' 1/8 200X



ARCO W. Mikk. Bay #1, 10,800-900' 2/2 200X



ARCO W. Mikk. Bay #1, 10,800-900' 1/14 200X



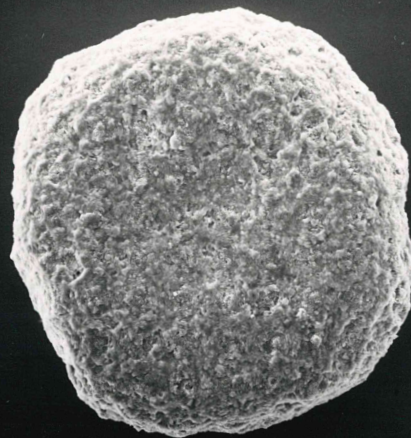
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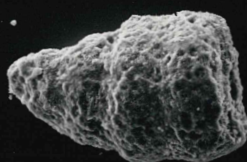
4



ARCO W. Mikk. Bay #1, 10,900-11,000' 1/1 200X

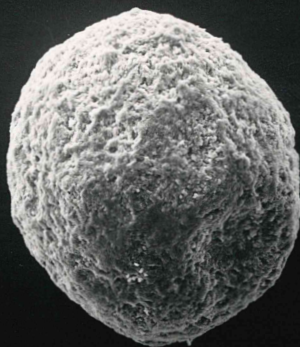


ARCO W. Mikk. Bay #1, 10,900-11,000' 1/8 200X

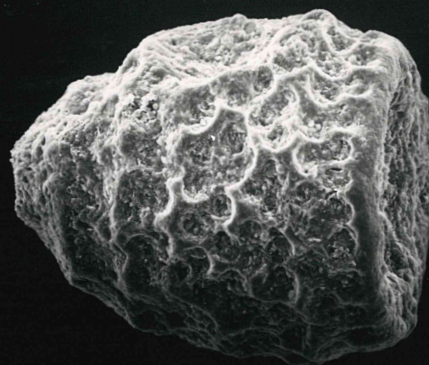


ARCO W. Mikk. Bay #1, 10,900-11,000' 2/2 200X

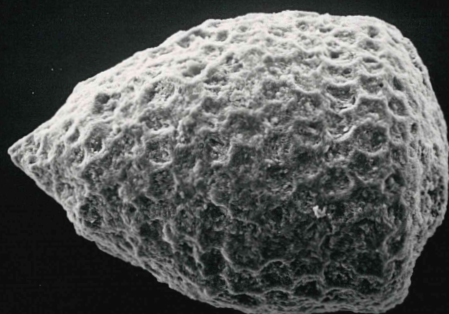




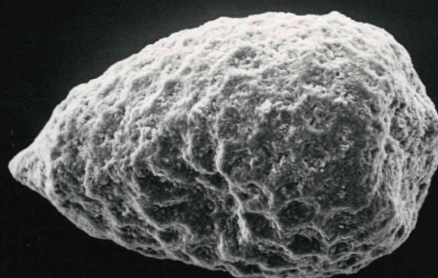
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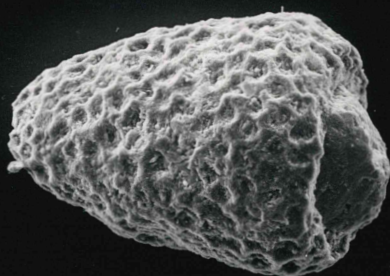
5  
ARCO W. Mikk. Bay #1, 11,000-100' 2/7 200X



ARCO W. Mikk. Bay #1, 11,000-100' 3/1 200X



ARCO W. Mikk. Bay #1, 11,000-100' 2/1 200X



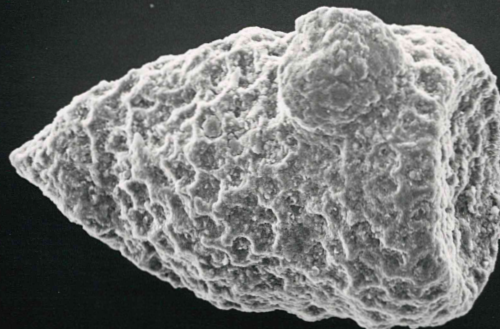
ARCO W. Mikk. Bay #1, 11,000-100' 3/3 200X



6



ARCO W. Mikk. Bay #1, 11,100-200' 1/3 200X

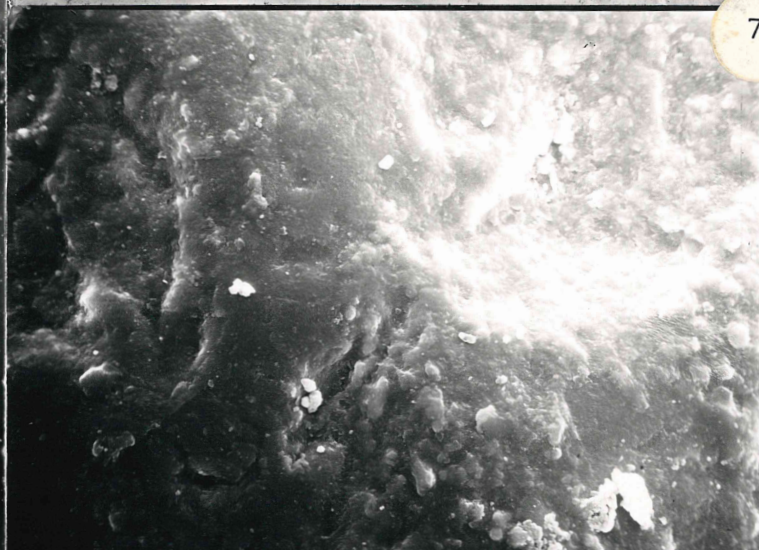


ARCO W. Mikk. Bay #1, 11,100-200' 2/8 200X

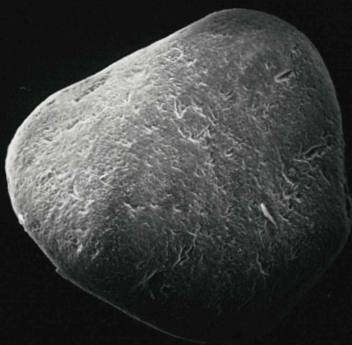




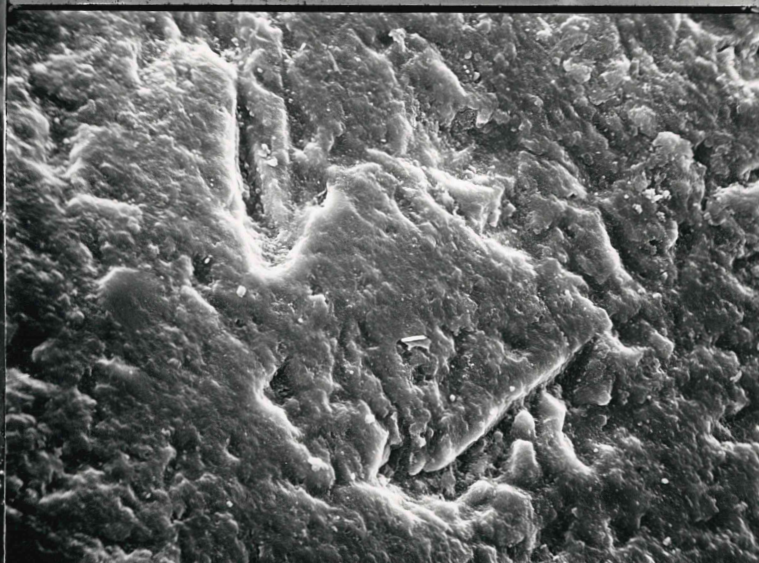
ARCO W. Mikk. Bay #1, 11,100-200' 3/4 190X



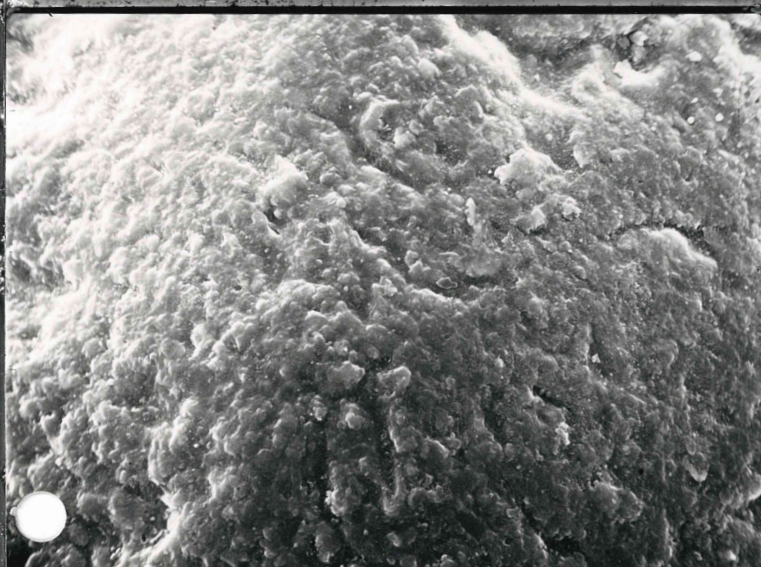
ARCO W. Mikk. Bay #1, 11,100-200' 3/4 1000X



ARCO W. Mikk. Bay #1, 11,100-200' 3/1 100X



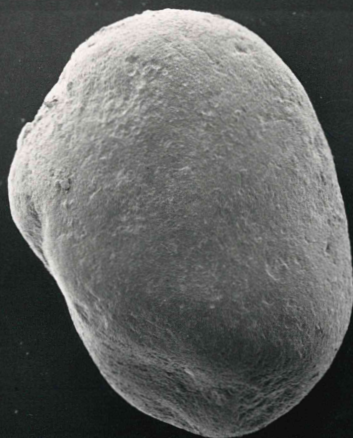
ARCO W. Mikk. Bay #1, 11,100-200' 3/1 1000X



ARCO W. Mikk. Bay #1, 11,100-200' 3/1 1000X



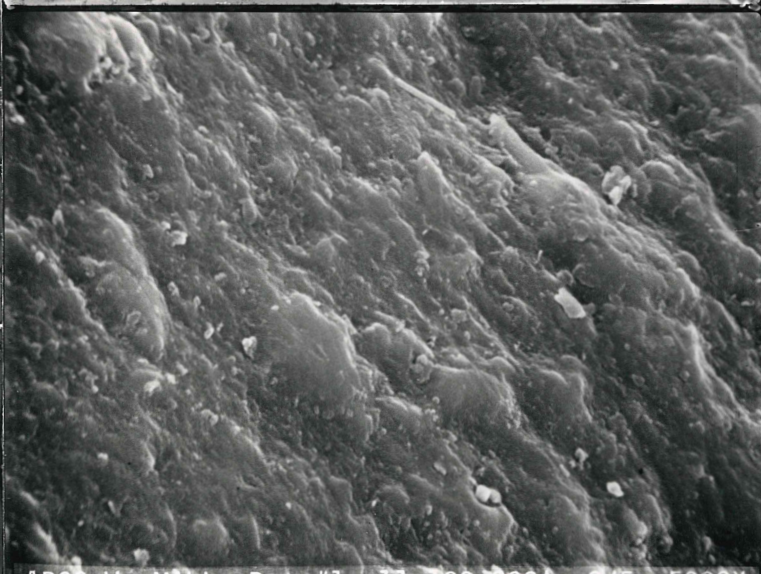
8



ARCO W. Mikk. Bay #1, 11,100-200' 3/5 190X



ARCO W. Mikk. Bay #1, 11,100-200' 3/5 1000X



ARCO W. Mikk. Bay #1, 11,100-200' 3/5 5000X