

PATTERN B

ALLUVIAL PLAIN

FACET NO. : B<sub>1</sub>                      NAME : Marshy Land  
LOCATION : North West of Hapa  
          Railway Station  
GEOREF : 41 J/2                      COMPILER : Geology Department  
   M.S. University  
   Baroda.  
DATE : March, 1977



### Morphology

The facet is very common in the shore area. It comprises a depression where tidal water is trapped and is characterised by a thick and uniform growth of grass; muddy and water-logged because the ground being at sea level. The tidal water remains trapped within the depressions. In addition to grass, some water plants also grow. The extent of this facet varies from a few m to about 200 m inland. Surface being always wet. Surface drainage absent.

### Surfacial deposits

Being a shallow depression almost at sea level, mud from the surrounding landscape is collected in it. Thickness of the mud varies from a few cm to as much as a m.

Water regime

Throughout the year the facet is waterlogged and saturated with saline water.

Associated Features

Position in landscape : Lowest in the surrounding landscape.

Soil : Transported mud, homogeneous, dark gray colour finegrained.

Vegetation: Grass of about 1 m height and some marshy plants.

Land use : Facet is a waste land

Genesis : Accumulation of soil and its saturation with saline water resulting in marshy topography.

Airphoto Interpretation Aids

Facet, because of vegetation, shows a dark gray tone against the background of a very light gray tone of the salt encrusted soil on seaward as well as on landward sides. Shape is irregular shows off shoots of gray tone, pointing to muddy stream channels within it.

Comments and Reference

Facet is present in the Toposheet Nos. 41 J/2, 41 F/3, F/4, F/7, F/11, F/14, and F/15 and is common all along the water line where tidal water is logged. Being marshy, the facet is difficult to cross over either by walking or by vehicles.





### Associated Features

Position in landscape: Lowest in the surrounding landscape.

Soil : Soils is of transported variety and derived from limestone, is mixed with stream borne sand and clay brought by tides.

Vegetation : Mostly barren

Land use : Nil

Genesis : Sedimentary deposit of fluvial and marine origins.

### Airphoto Interpretation Aids

On the airphotos, the facet shows a uniform surface of light gray tone without any feature; mostly smooth and plain. Surface is flanked by dark gray toned agricultural land.

### Comments and Reference

Facet is present in the Toposheet Nos. 41 F/3, F/4, fringes the Rann as well as occurs sporadically in the Oldha Mandal. Being smooth and plain, easily accessible to men and vehicles. Surface drainage absent; small bushes and grass are present in patches.



FACET NO. : B<sub>3</sub> NAME : Rann  
LOCATION : Between Okha Mandal  
and Mainland of  
Saurashtra  
GEOREF : 41 F/3, F/4 COMPILER : Geology Department  
M.S. University  
DATE : March, 1977 Baroda.



### Morphology

The facet occupies lowest position in the surrounding landscape. The facet is smooth, plain and almost horizontal and occupies an area of about 120 sq.km. Surface is covered with fine light coloured soil. A part of the facet (northern) is under the influence of tidal waters.

### Surfacial deposits

The surface is covered with fine light coloured soil. Depth of soil is a few cm and more. Underlying rock is limestone observed in the pits along the road side. This soil is transported. Wet soil is sticky and plastic.

Water regime

Partly the facet remains under tidal water during high tides, whereas part of it is flooded during monsoon only. Though the upper surface looks dry, a few cm below, water is always present. This water is saline.

Associated Features

Position in landscape : Lowest in the landscape surrounding it.

Soil : Transported, fine, light coloured; homogenous; consists of a mixture of material brought by tides and streams.

Vegetation : Soil is highly saline, and toxic hence no vegetation grows; remains exposed to atmosphere for longer time hence no mangroves also grow.

Land use : Nil. Presently a part of it is used for manufacture of salt.

Genesis : It is a tectonically depressed area almost at sea level, made up of saline mud, clay and sands. Soil is transported partly from land and partly from Gulf.

Airphoto Interpretation Aids

Facet shows a plain, barren smooth surface on the airphotos. Wet portions show dark gray tone while dry soils because of salt encrustation show very light gray tone. Thus irregular patches of dark gray and very light gray tone are seen haphazardly spread over the facet.

Comments and Reference

Facet is present in the Toposheet No. 41 F/3, F/4. Dry surface is accessible to both men and vehicles in fair weather. During monsoon facet gets flooded hence inaccessible. Surface drainage absent.