



MINISTÉRIO DA CIÊNCIA E TECNOLOGIA
INSTITUTO NACIONAL DE PESQUISAS ESPACIAIS

Laboratório 3

Introdução ao Geoprocessamento – SER 300

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São José dos Campos - SP

Maior – 2013

EXERCÍCIO 1

Criação do Banco de dados e Projeto

Figura 1 – Banco de dados

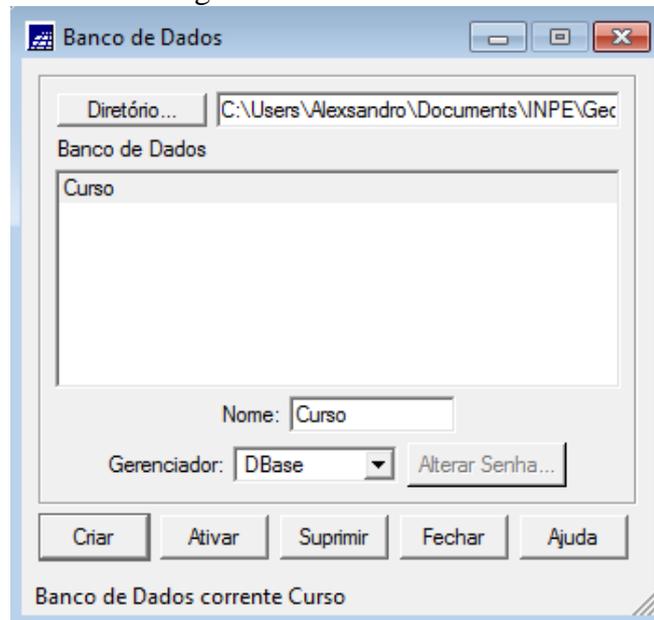
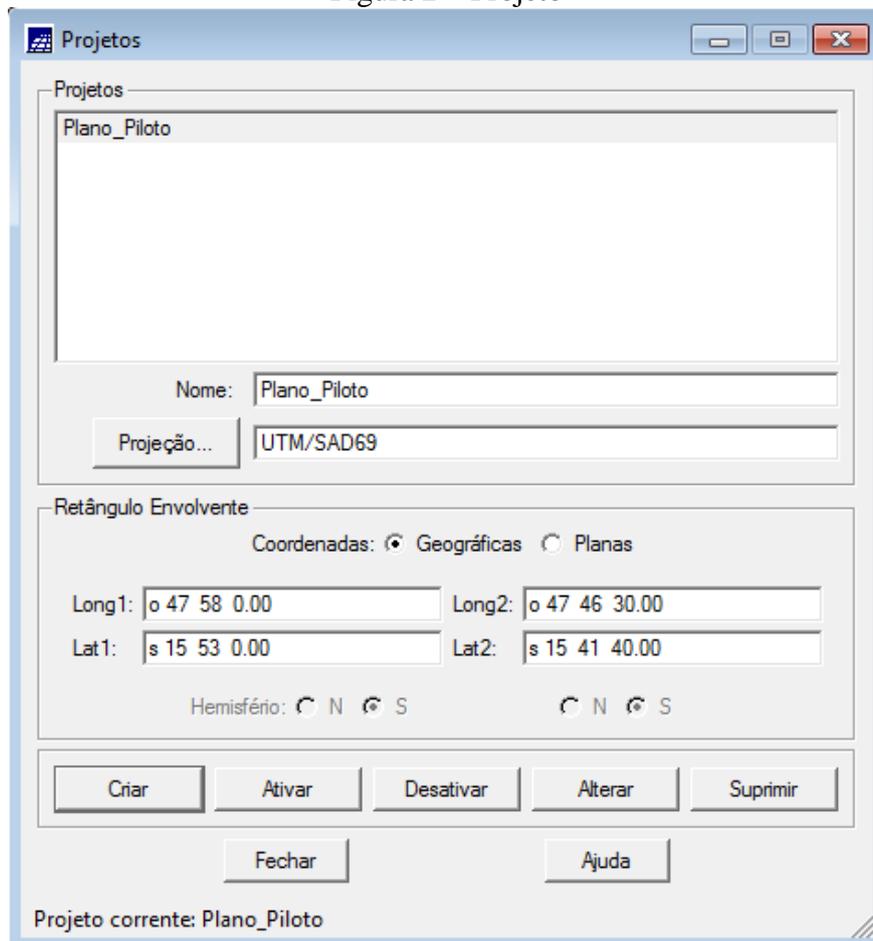


Figura 2 – Projeto



EXERCÍCIO 2

Importação de amostras de MNT

Figura 3 – Importar isolinhas

Importação

Dados Externos

Diretorio... C:\Users\Alexsandro\Documents\INPE CR

Formato: DXF-R12 Layer... Mapa_Altimetrico

MNT-iso.dxf
MNT-pto.dxf
Rios-linha-quebra.dxf

Entidade: Amostra (MNT) Unid.: m

Escala 1/ 25000 Res.: X: 20 Y: 20

Projeção... UTM/SAD69 Retâng. Env...

SPRING

Projeto: Plano_Piloto

Categoria... Altimetria

Objeto...

P! Mapa_Altimétrico Mosaico

Executar Fechar Ajuda

Figura 4 – Importar pontos cotados

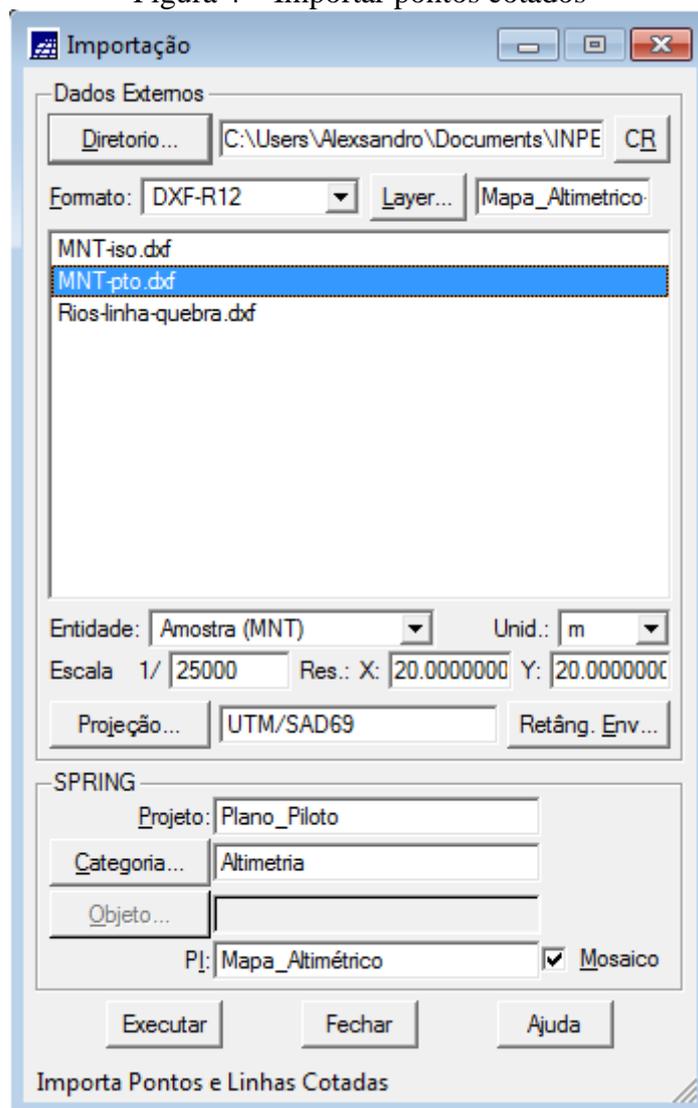


Figura 5 – Isolinhas e pontos cotados

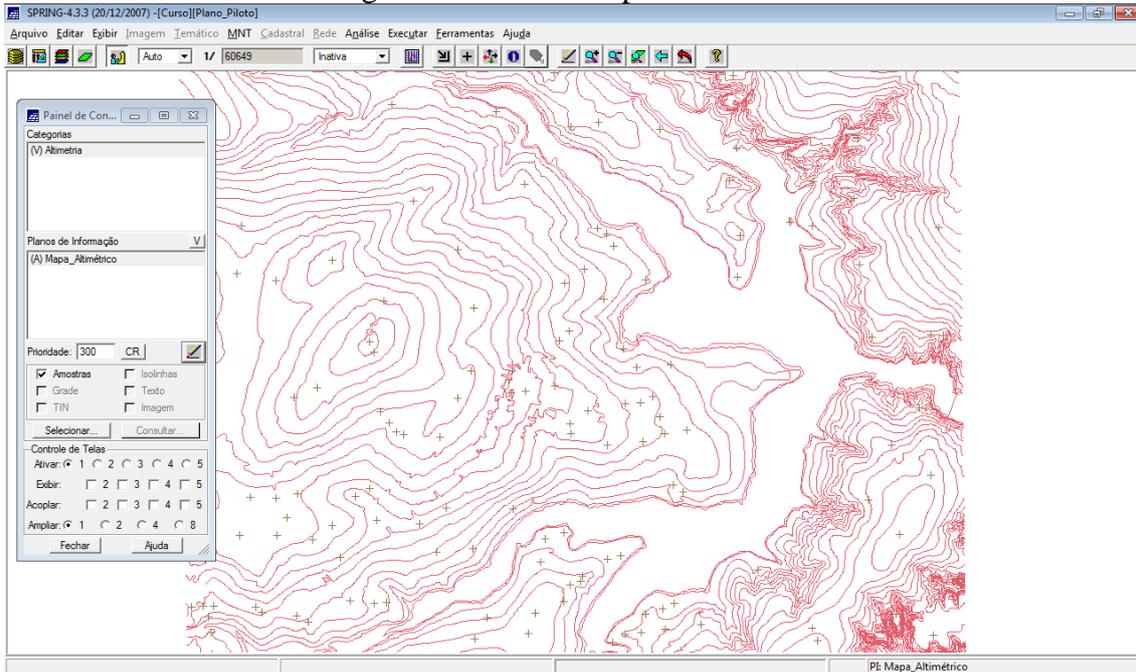


Figura 6 – Geração de textos

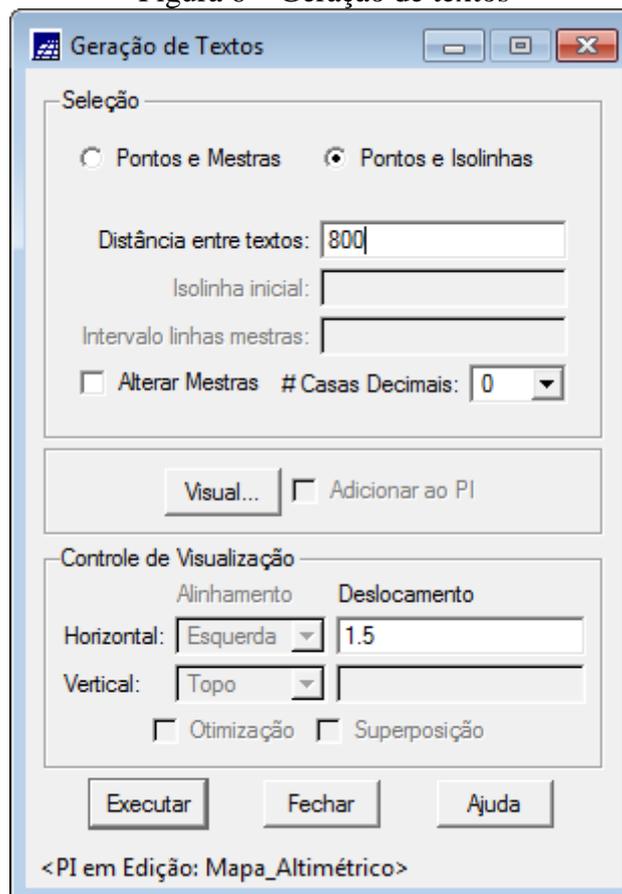
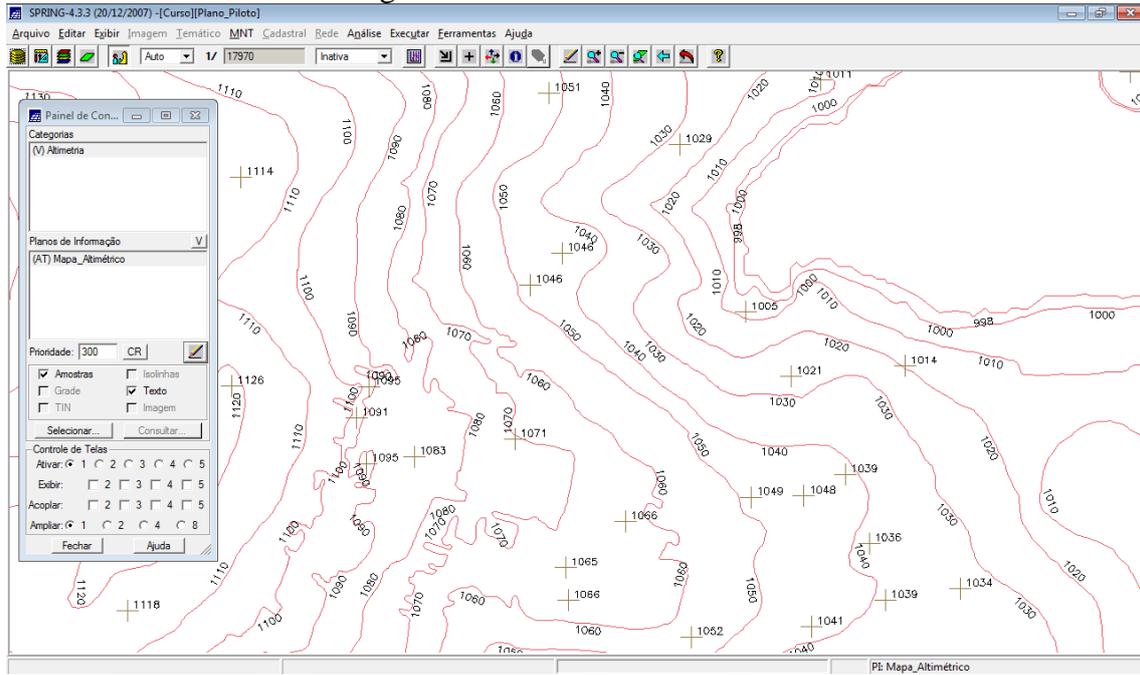


Figura 7 – PI numérico com textos



EXERCÍCIO 3

Edição MNT

Figura 8 – Retângulo envolvente

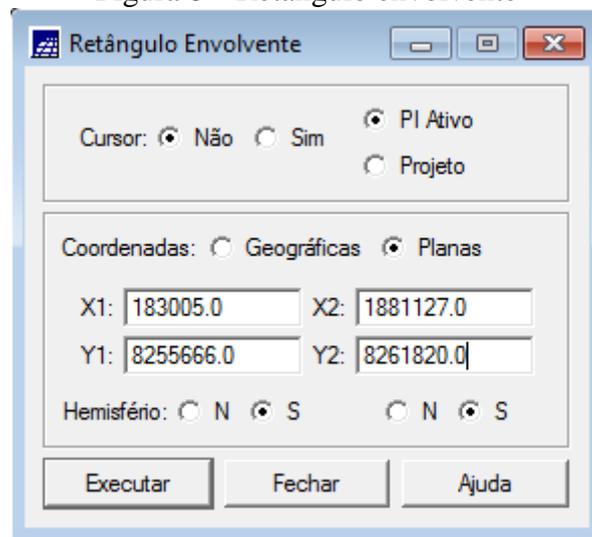


Figura 9 – PI teste

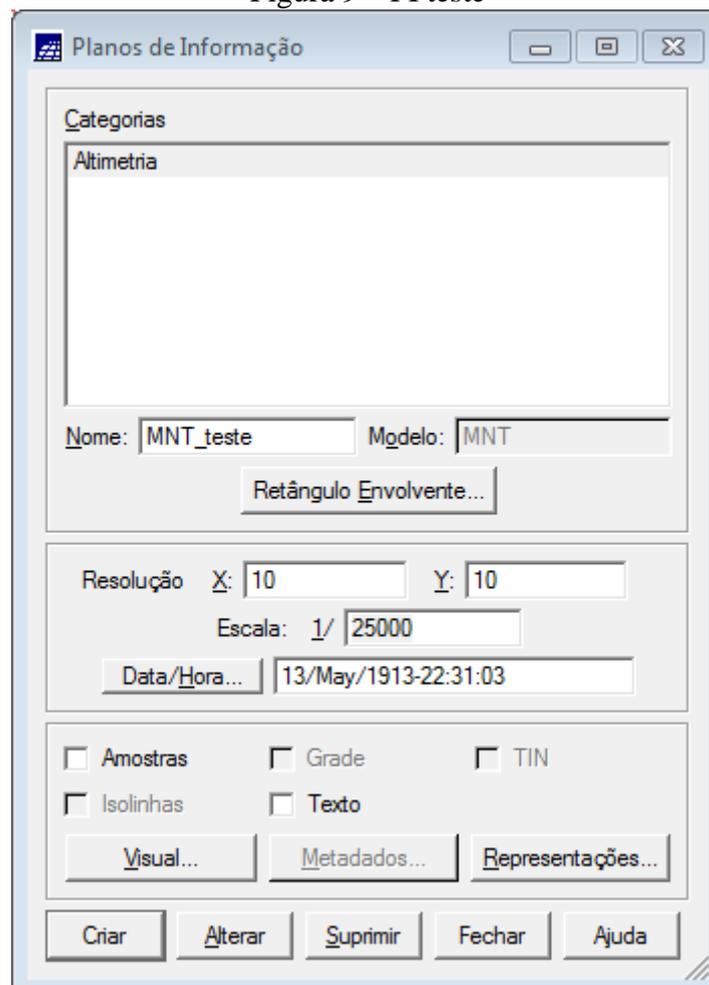


Figura 10 – MNT_teste

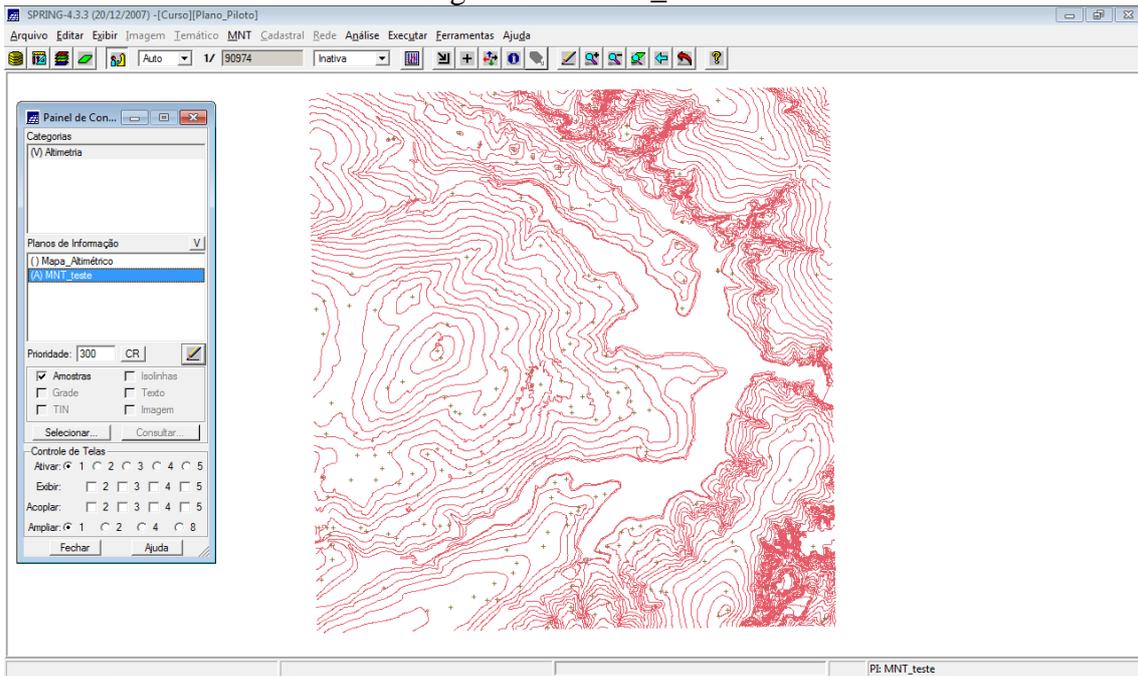


Figura 11 – Edição de isolinhas

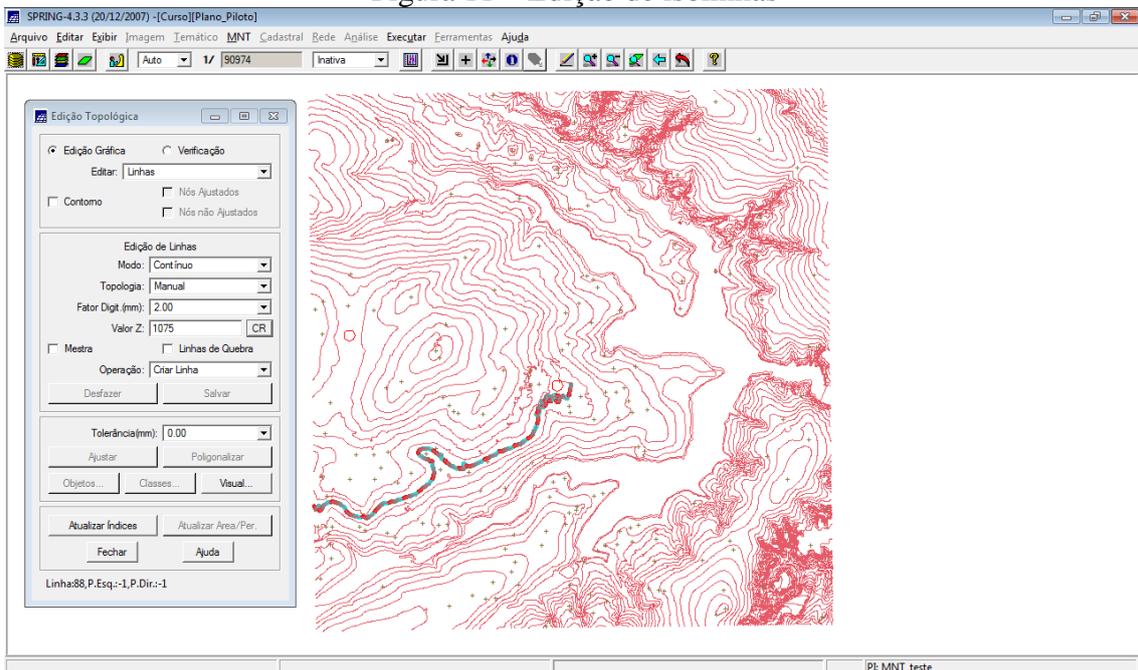


Figura 12 – Edição de pontos cotados

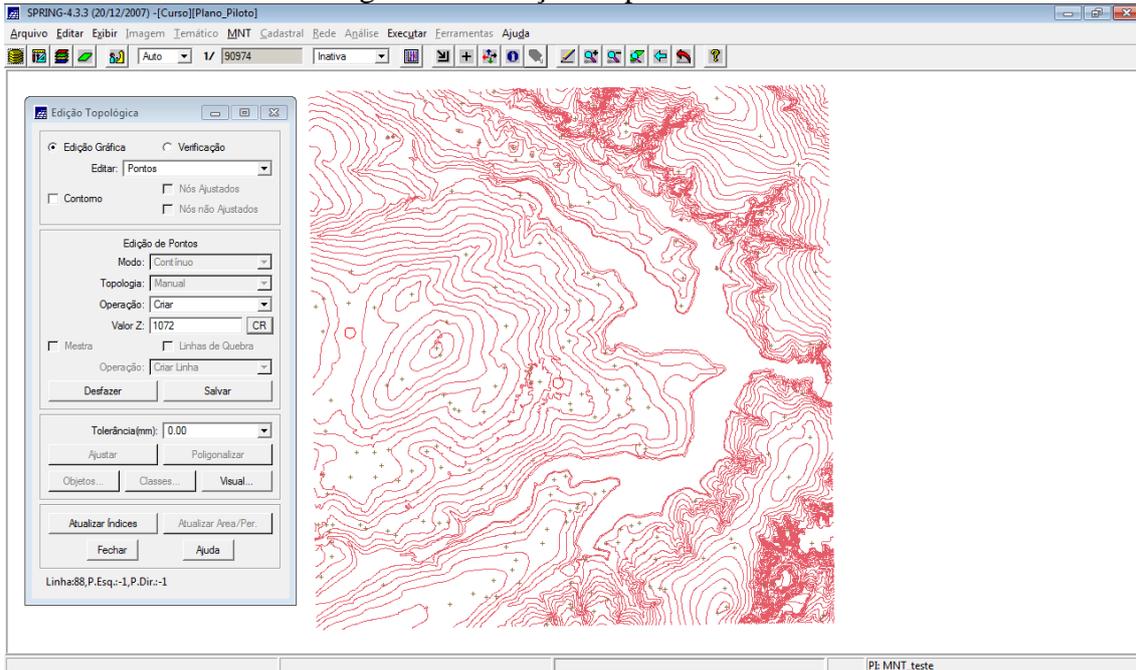
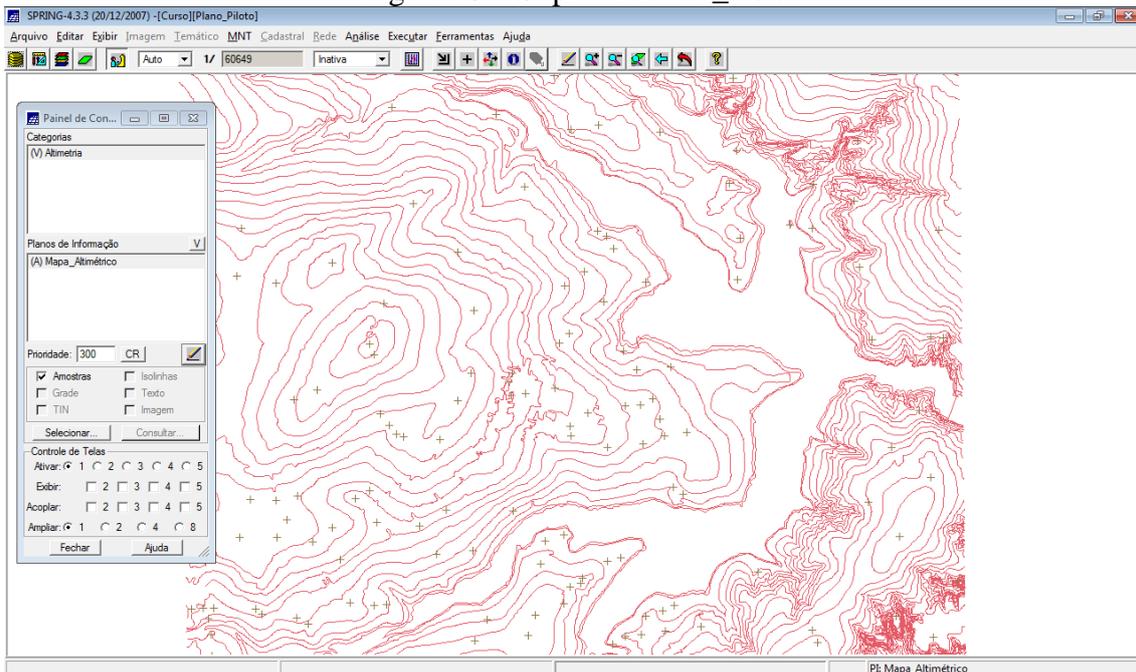


Figura 13 – Suprimir MNT_teste



EXERCÍCIO 4

Gerar grade triangular

Figura 14 – TIN sem linha de quebra

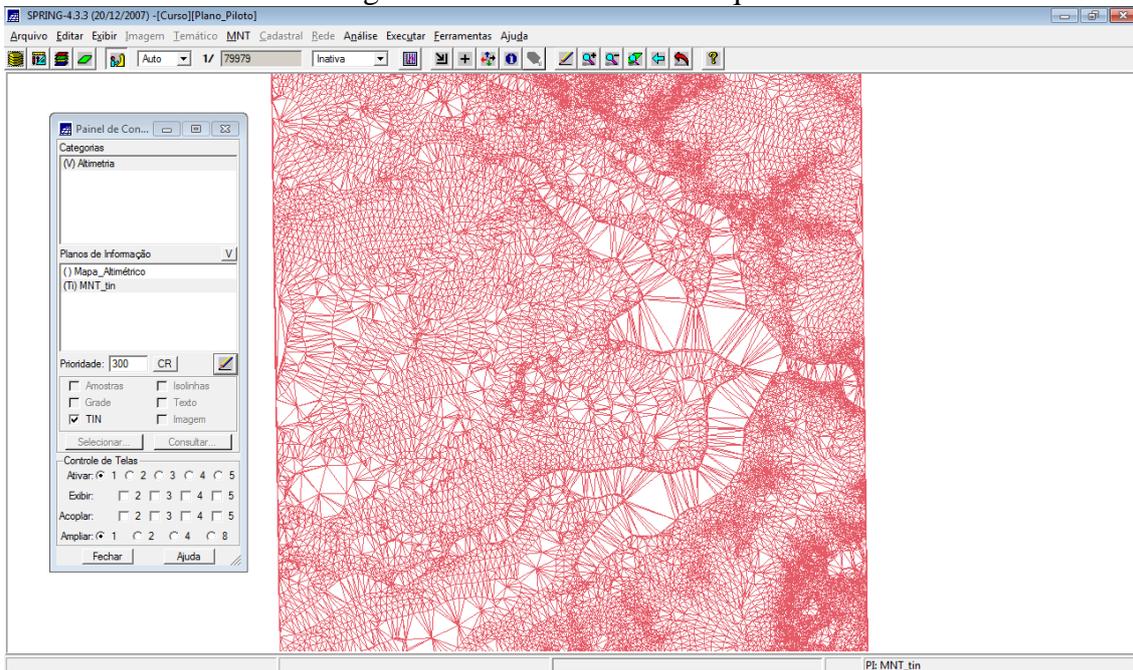
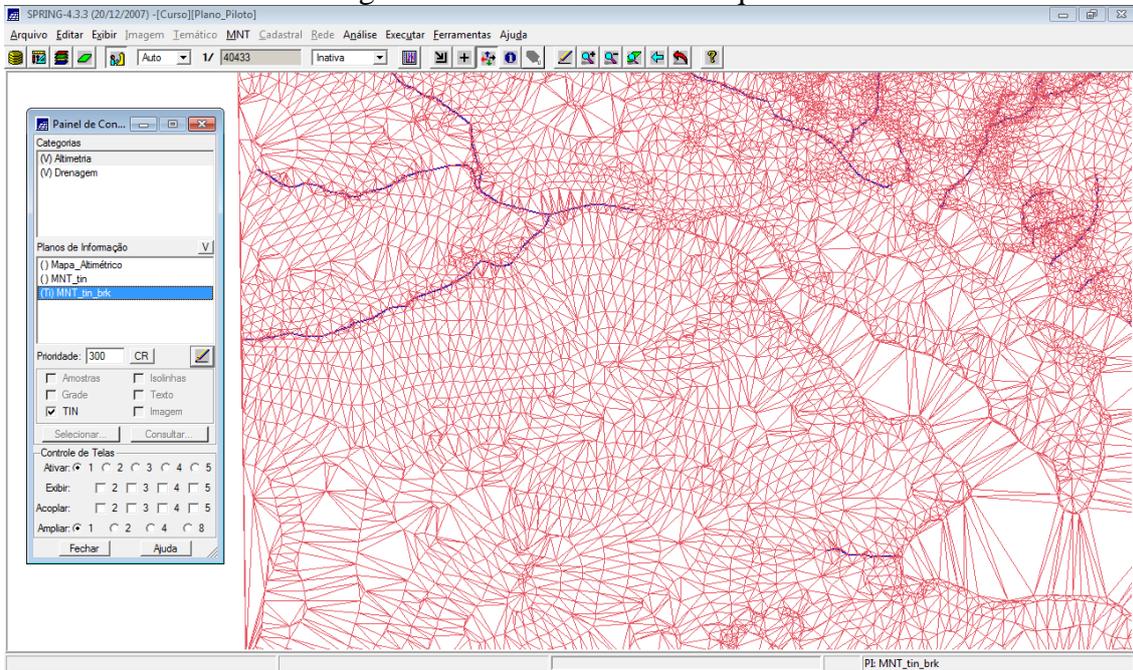


Figura 15 – TIM com linha de quebra



EXERCÍCIO 5 Gerar grade regular

Figura 16 – Grade regular (50x50) a partir das amostras

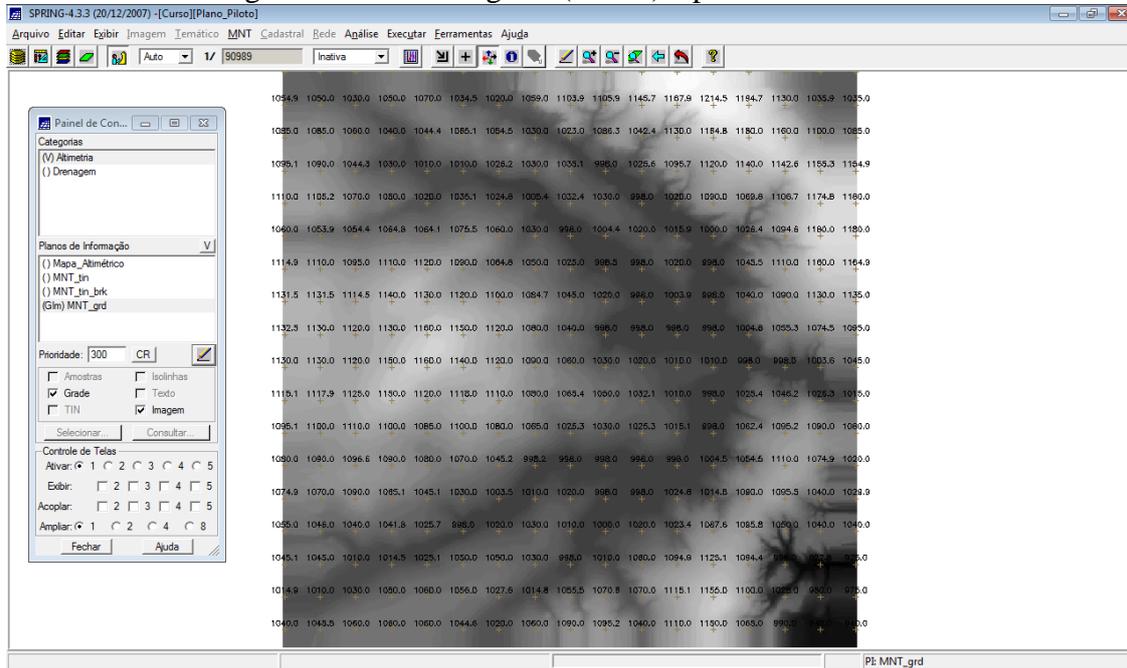


Figura 17 – Grade regular (10x10) a partir da grade anterior

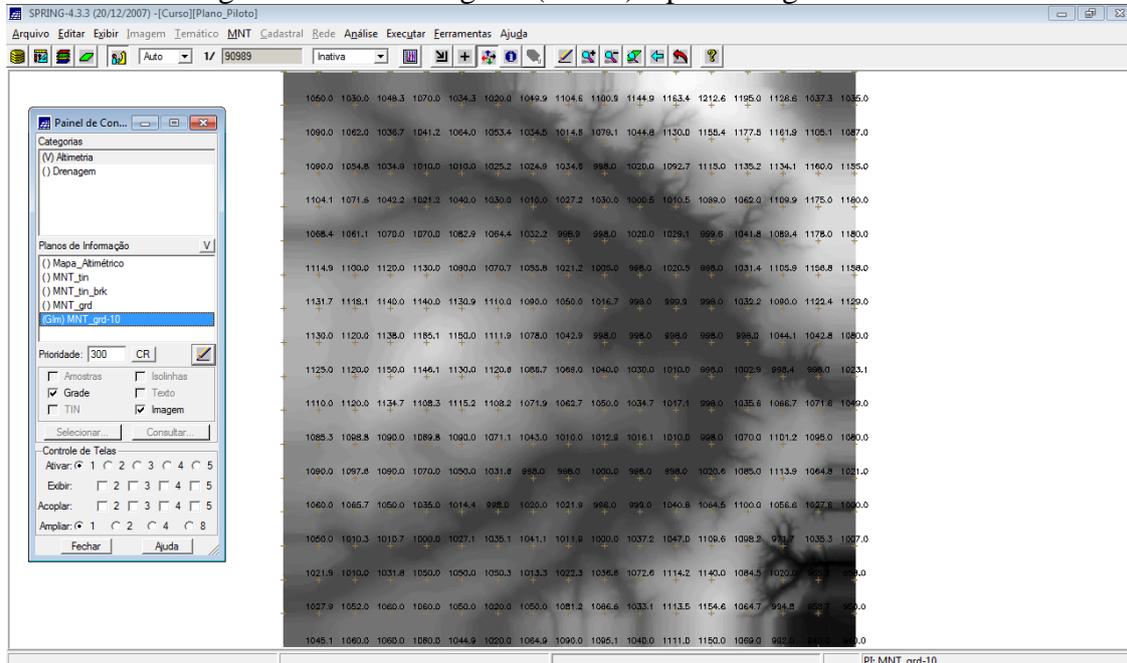
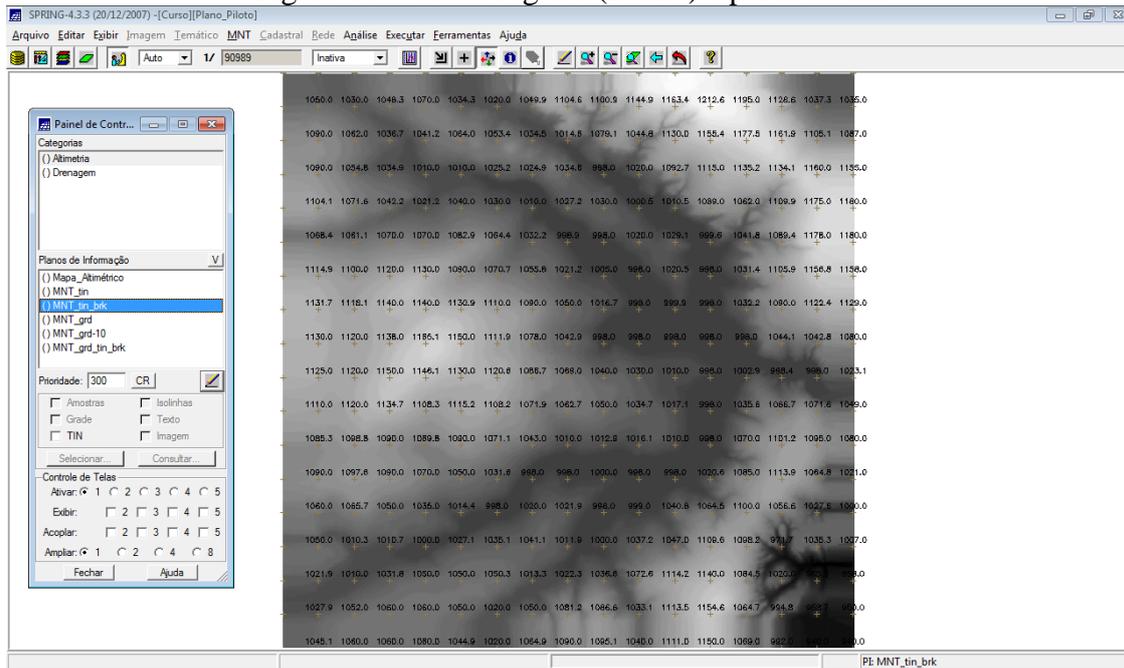


Figura 18 – Grade regular (20x20) a partir da TIN



EXERCÍCIO 6

Gerar imagem para MNT

Figura 19 – Imagem MNT em nível de cinza

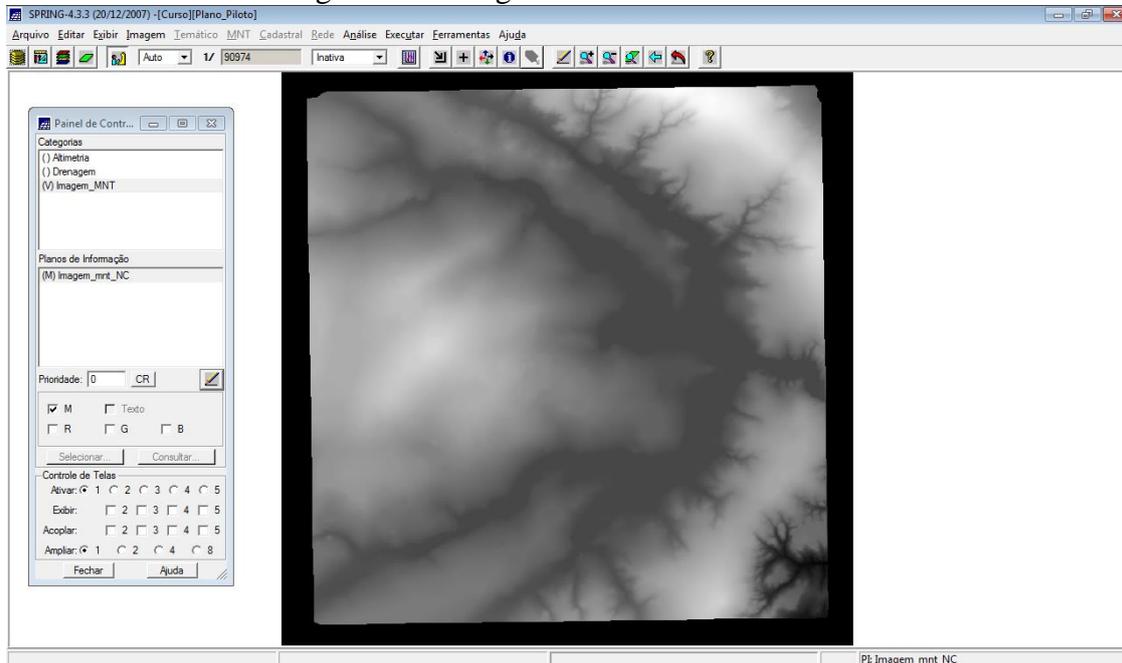
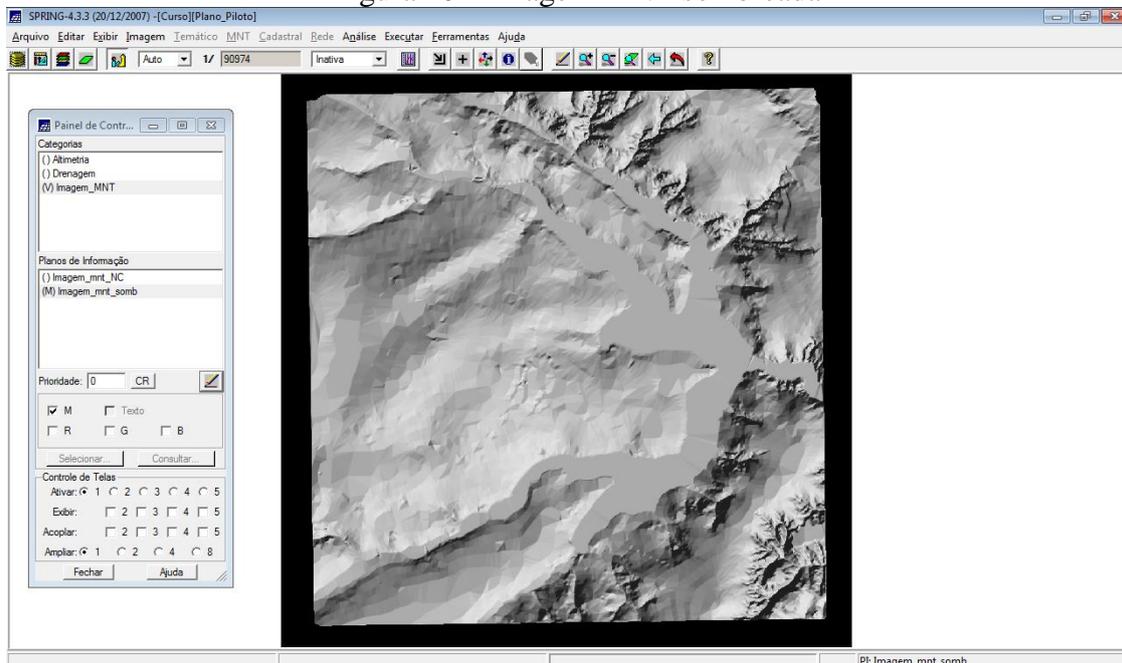


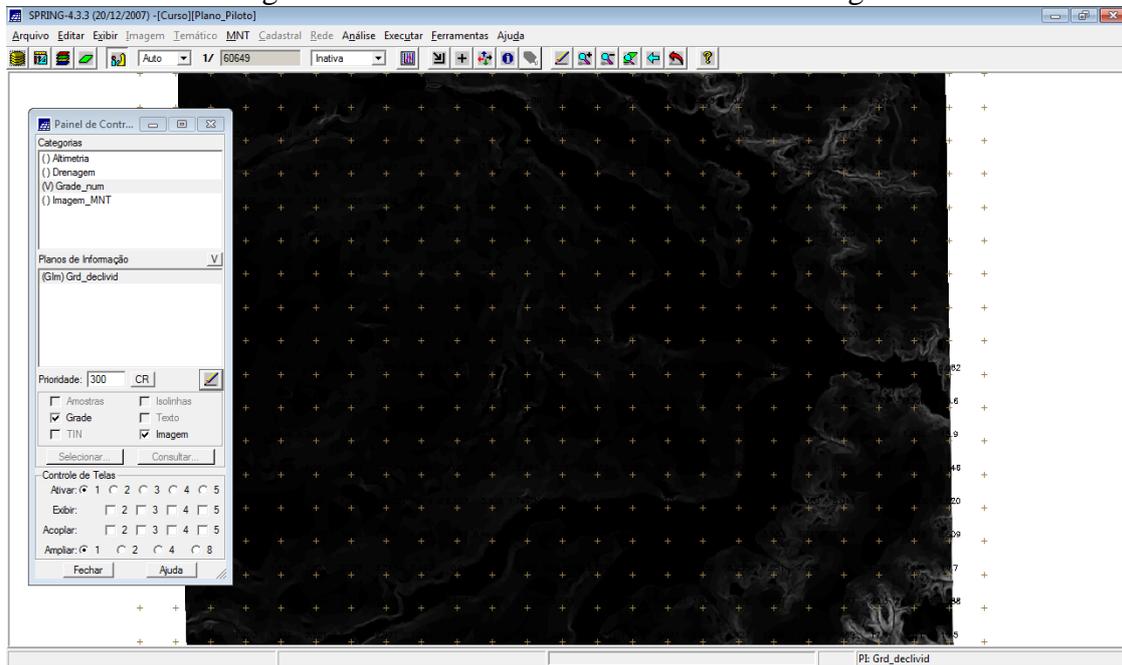
Figura 20 – Imagem MNT sombreada



EXERCÍCIO 7

Gerar grade de declividade

Figura 21 – Grade numérica de declividade em graus



EXERCÍCIO 8

Gerar mapa de declividade

Figura 22 – Mapa de declividade

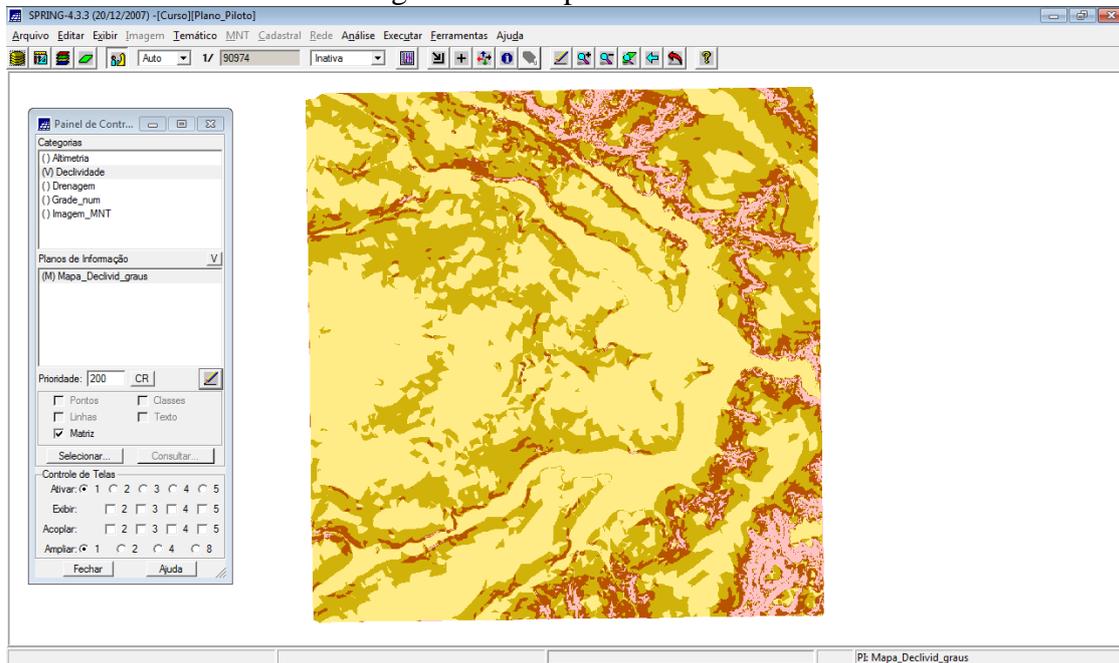
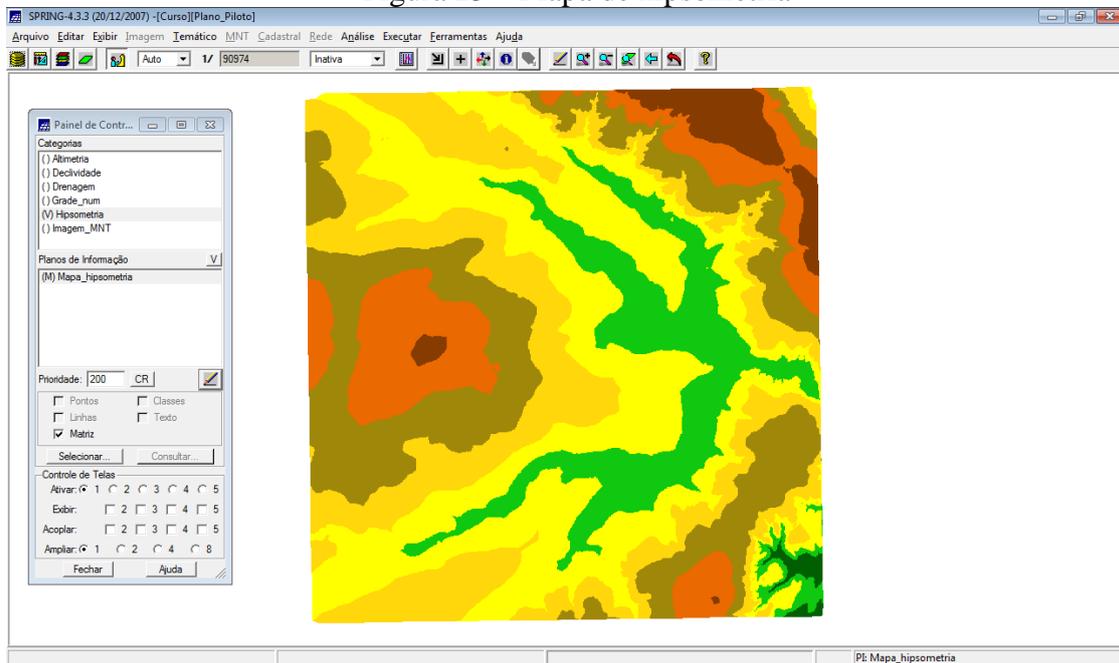


Figura 23 – Mapa de hipsometria



EXERCÍCIO 9

Gerar perfil a partir de grades

Figura 24 – Trajetórias

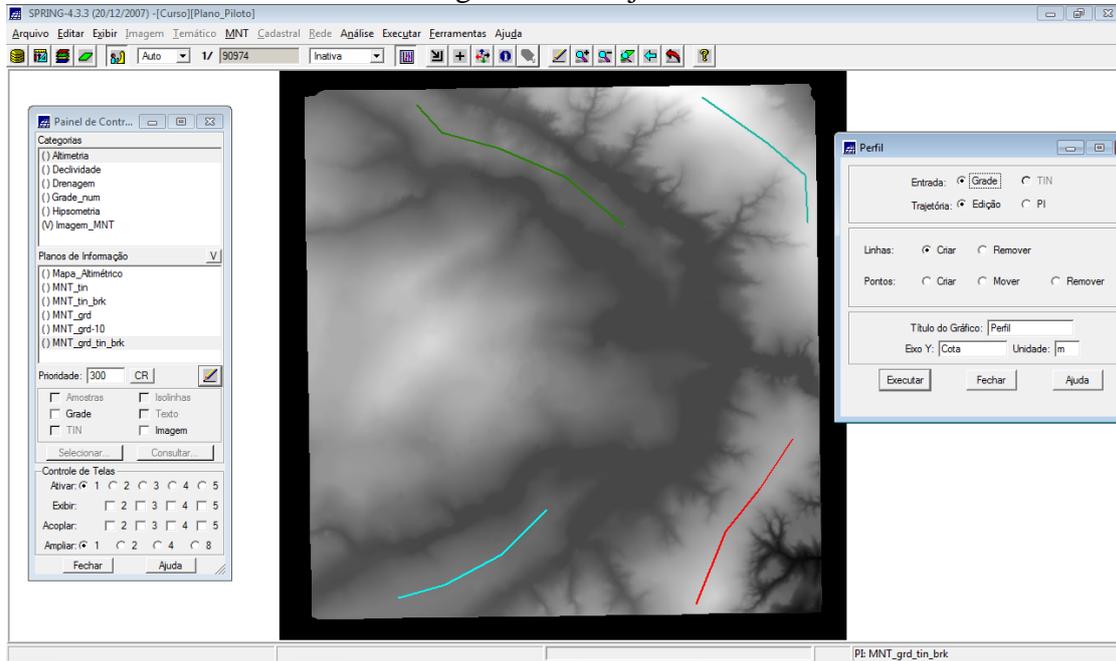
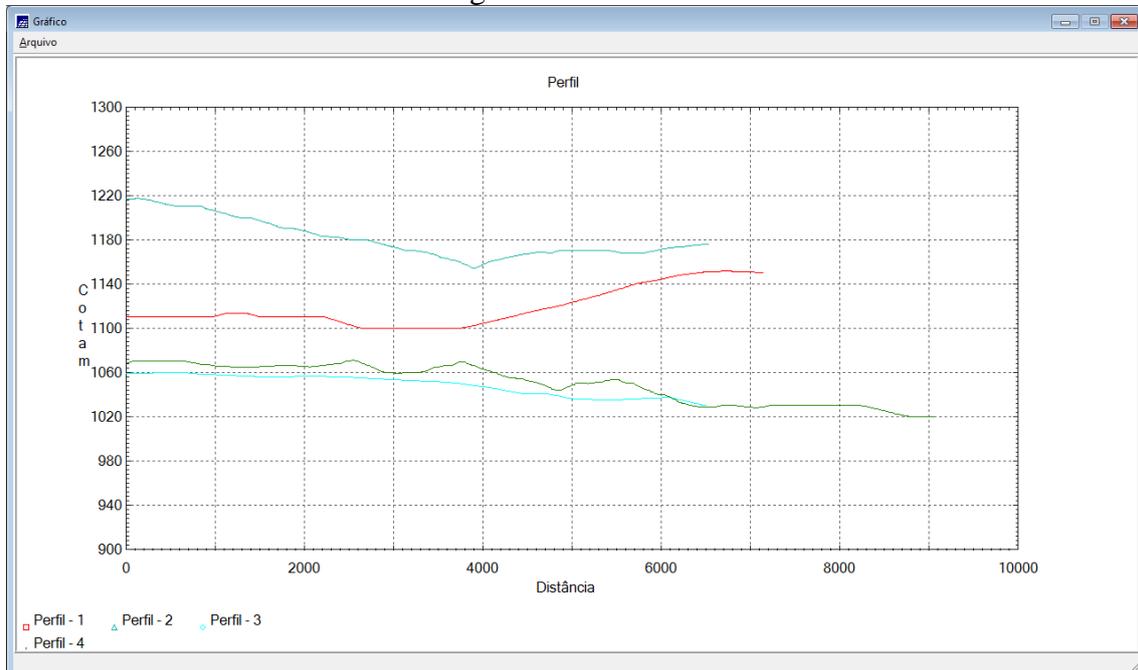


Figura 25 – Gráficos



EXERCÍCIO 10

Imagem em 3D

Figura 26 – Visualização em projeção paralela

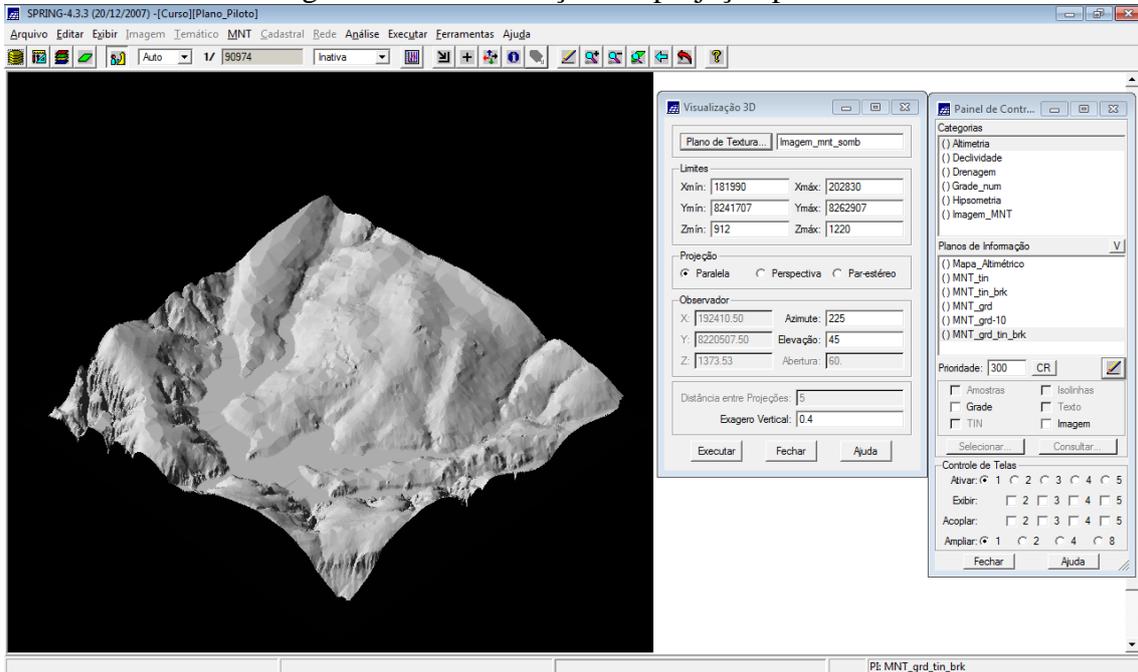


Figura 27 – Visualização em projeção perspectiva

