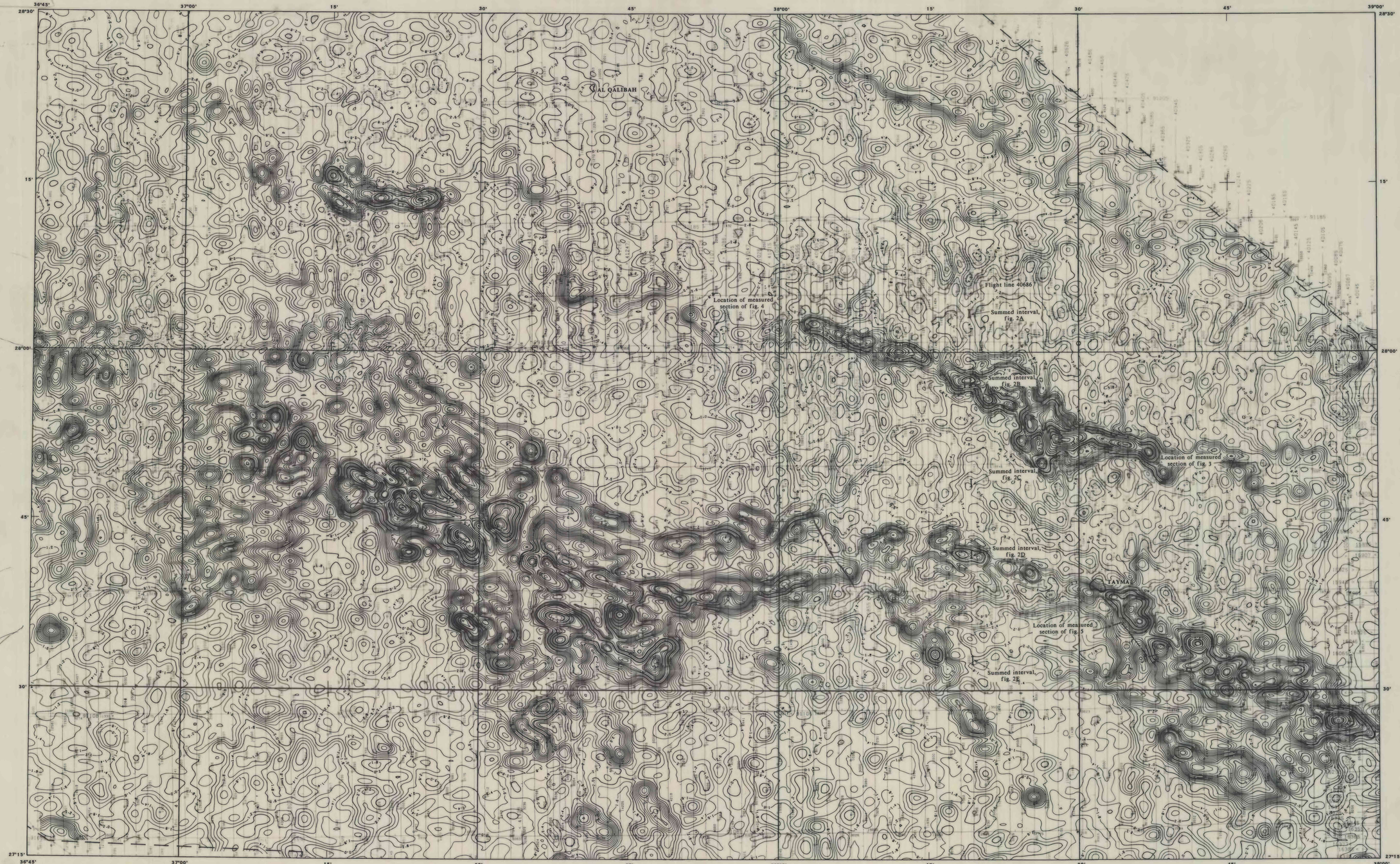
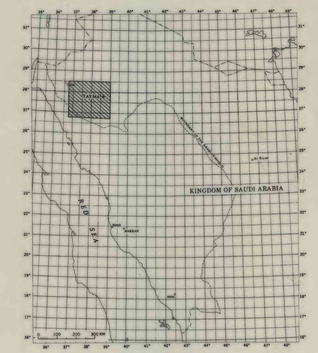
U.S. DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY, PREPARED FOR

MINISTRY OF PETROLEUM AND MINERAL RESOURCES
DEPUTY MINISTRY FOR MINERAL RESOURCES

KINGDOM OF SAUDI ARABIA

OPEN-FILE REPORT USGS-OF 86-259
PLATE 1





Location of study area

EXPLANATION

TECHNICAL SUMMARY

Contractor	Geosurvey International Limited
Date survey flown	November 1982 - May 1983
Aircraft	Cessna Titan 404 (N28PG)
Navigation	Visual and Doppler assisted
Tracking camera	Geocam 75 SF 35mm strip/frame camera
Terrain clearance	120 m
Flight line direction	North - South
Flight line spacing	2 km (1km in selected areas)
Tie line direction	East - West
Tie line spacing	20 km
Data sampling interval	60 m
Fiducial interval	120 m
Spectrometer	URTEC USI 212, multichannel gamma ray spectrometer (256 channels 4 Pi 128 channels 2 Pi)
Crystal Volume	URTEC crystal detectors (50,341 cm³ 4 Pi 8,390 cm³ 2 Pi)
Uranium daughter energy window	1.66 - 1.87 MeV
Sensitivity at 120 m	1 ppm equivalent uranium = 14 · 1 cps
Data reduction grid interval	500 m
Grid filter	2000 m

CONTOUR INTERVAL

0.2 parts per million (ppm)	
1 part per million (ppm)	
Contour annotations	HIGH 3·0 LOW 0·1

POSITIONING DETAIL

Ground control points with fiducial numbers	1555 1556
Tie line number with flight direction	90303 <
Hundredth fiducial markers	
Flight line number with flight direction	43420 > 43400 < 43380 >
Survey area boundary	

Airborne survey flown and compiled by:
Geosurvey International Limited,
Geosurvey House,
Orchard Lane,
East Molesey,
Surrey, ENGLAND.

This report has not been edited or reviewed for conformity with U.S. Geological Survey standards and nomenclature.

SCALE 1:250 000

5 0 5 10 15 20 25 30 35 40 45 KILOMETERS

5 0 5 10 15 20 25 MILES

Base map prepared by the United States Geological Survey for the Kingdom of Saudi Arabia from computer enhanced Landsat MSS band 7 imagery.

Imagery controlled to photo-identified ground positions. The root-mean-square error in position of well-defined features in relation to the graticule is approximately 169 meters

Transverse Mercator Projection

COMPOSITE EQUIVALENT URANIUM MAP OF RADIOMETRIC ANOMALIES IN THE TABUK FORMATION NEAR TAYMA, KINGDOM OF SAUDI ARABIA

by
James A. Pitkin and A. Curtis Huffman, Jr.

IR- 719
3 copies each of ozalids