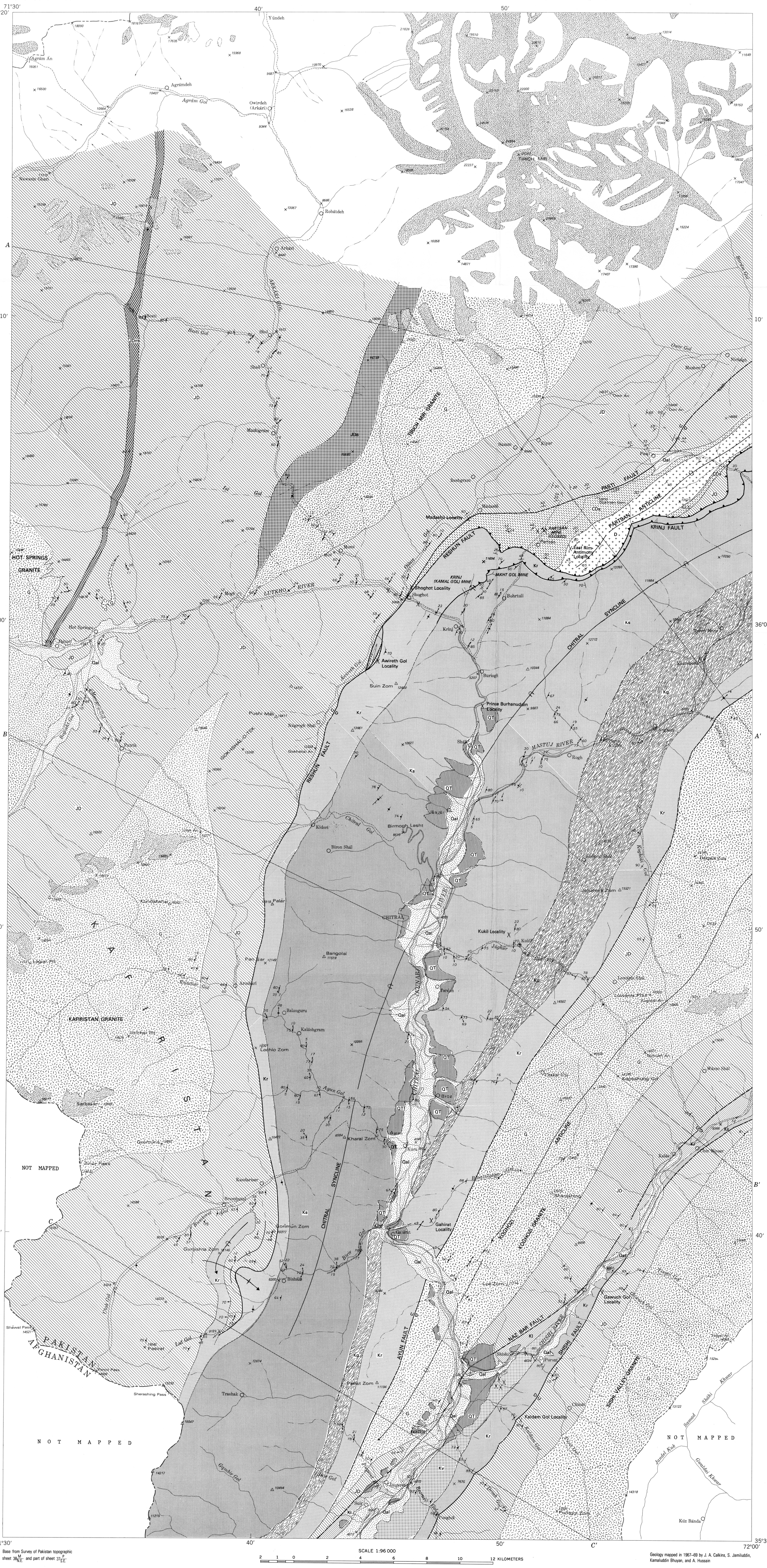
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MINISTRY OF INDUSTRIES AND NATURAL RESOURCES
GEOLOGICAL SURVEY OF PAKISTAN

PROFESSIONAL PAPER 716–G
PLATE 1


71°30′
36°20′
40′
50′
10′
36°00′
50′
40′
35°30′
72°00′
A
A′
B
B′
C
C′
TIRICH MIR
TIRICH MIR GRANITE
HOT SPRINGS GRANITE
KAFIRISTAN GRANITE
K A F I R I S T A N
PAKISTAN
AFGHANISTAN
NOT MAPPED
N O T M A P P E D
RESHUN FAULT
PASTI FAULT
PARTSAN ANTICLINE
KRINJ FAULT
CHITRAL SYNCLINE
LUTKHO RIVER
MASTUJ RIVER
CHITRAL (KUNAR) RIVER
AYUN FAULT
KOGHOZI ANTICLINE
KOGHOZI GRANITE
NAZ BAR FAULT
SHISHI FAULT
SHISHI RIVER
SISHI VALLEY GRANITE
GOKHSHAL-O-TEK
Madashil Locality
PARTSAN MINE (CLOSED)
East Rim Antimony Locality
BAKHT GOL MINE
KRINJ (KAMAL GOL) MINE
Shoghot Locality
Awireth Gol Locality
Prince Burhanuddin Locality
Kukil Locality
Gahirat Locality
Gawuch Gol Locality
Kaldam Gol Locality
Chitral
Hot Springs
Arkari Gol
Agram Gol
Besti Gol
Ojhor Gol
Ayun Gol
Bumboret Gol
Birir Gol
Drosh Gol
JD
JDm
JDa
G
Qal
QT
Ks
Kg
Kl
Kv
Kr
CDs
D

Base from Survey of Pakistan topographic sheet $38\frac{M}{N.E.}$ and part of sheet $37\frac{P}{S.E.}$

SCALE 1:96 000

2 1 0 2 4 6 8 10 12 KILOMETERS

2 1 0 2 4 6 MILES

Geology mapped in 1967–69 by J. A. Calkins, S. Jamiluddin, Kamaluddin Bhuyan, and A. Hussain

EXPLANATION

Symbol	Unit	Age
	Ice	
Qal	Alluvium	QUATERNARY
QT	Terrace deposits	QUATERNARY
Ks	Chitral Slate	CRETACEOUS
Kg	Greenschist	CRETACEOUS
Kl	Limestone and phyllite	CRETACEOUS
Kv	Volcanic greenstone	CRETACEOUS
Kr	Reshun Formation	CRETACEOUS
G	Granite	
JD JDm JDa	Jurassic to Devonian rocks JDm: Marble unit JDa: Amphibolite unit	
CDs	Sarikol Shale	DEVONIAN TO CARBONIFEROUS; DEVONIAN TO JURASSIC
D	Devonian unit	DEVONIAN; DEVONIAN TO JURASSIC

Contact
Dashed where approximately located, dotted where concealed or inferred

U D
Fault, showing dip
Dashed where approximately located, dotted where concealed or inferred. U, *upthrown side;* D, *downthrown side. Arrows show relative horizontal movement*

Thrust fault, showing dip
Dashed where approximately located. Sawteeth on upper plate; dip shown where observed

Overturned anticline
Showing trace of axial surface and direction of dip and plunge. Dashed where approximately located, dotted where concealed

Syncline
Showing troughline and plunge

Overturned syncline
Showing trace of axial surface and direction of dip of limbs and plunge. Dotted where concealed

Planar Features

40 Inclined — 40 Overturned — Vertical
Strike and dip of beds
Showing top of beds, T, *where known*

38 Inclined — Vertical
Strike and dip of foliation

5
Bearing and plunge of lineation

35 50 — 7 50 41 — 50
Strike and dip of foliation and bearing and plunge of inclined lineation or horizontal lineation.
Showing more than one lineation where measured

⚒
Mine

X
Mineral locality

Adit

$37\frac{P}{S.W.}$	$37\frac{P}{S.E.}$	$42\frac{D}{S.W.}$
$38\frac{M}{N.W.}$	$38\frac{M}{N.E.}$	$43\frac{A}{N.W.}$
$38\frac{M}{S.W.}$	$38\frac{M}{S.E.}$	$43\frac{A}{S.W.}$

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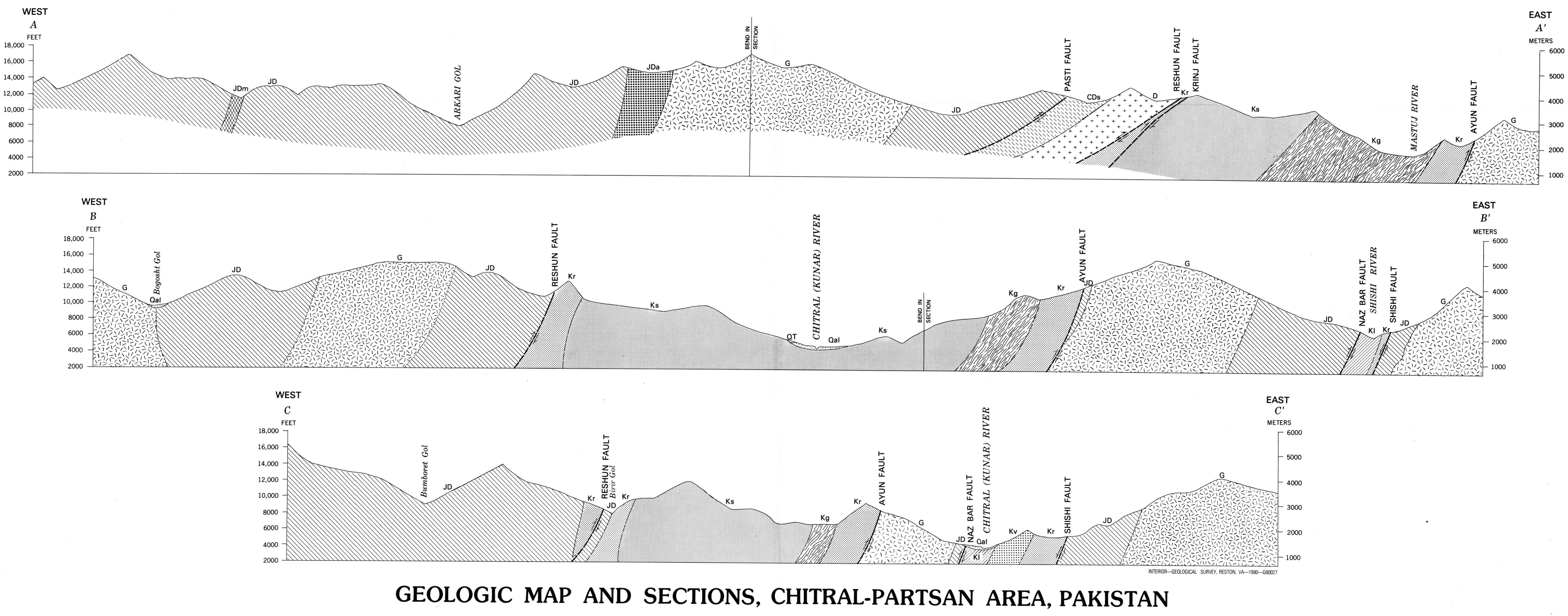
AGENCY FOR INTERNATIONAL DEVELOPMENT
UNITED STATES DEPARTMENT OF STATE


WEST
A
FEET
18,000
16,000
14,000
12,000
10,000
8000
6000
4000
2000
JDm
JD
ARKARI GOL
JDa
BEND IN SECTION
G
PASTI FAULT
CDs
D
RESHUN FAULT
KRINJ FAULT
Kr
Ks
Kg
MASTUJ RIVER
AYUN FAULT
EAST
A′
METERS
6000
5000
4000
3000
2000
1000
WEST
B
Bogosht Gol
Qal
RESHUN FAULT
CHITRAL (KUNAR) RIVER
QT
BEND IN SECTION
AYUN FAULT
NAZ BAR FAULT
SHISHI RIVER
SHISHI FAULT
Kl
EAST
B′
WEST
C
Bumboret Gol
Birir Gol
Kv
EAST
C′

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GEOLOGIC MAP AND SECTIONS, CHITRAL-PARTSAN AREA, PAKISTAN