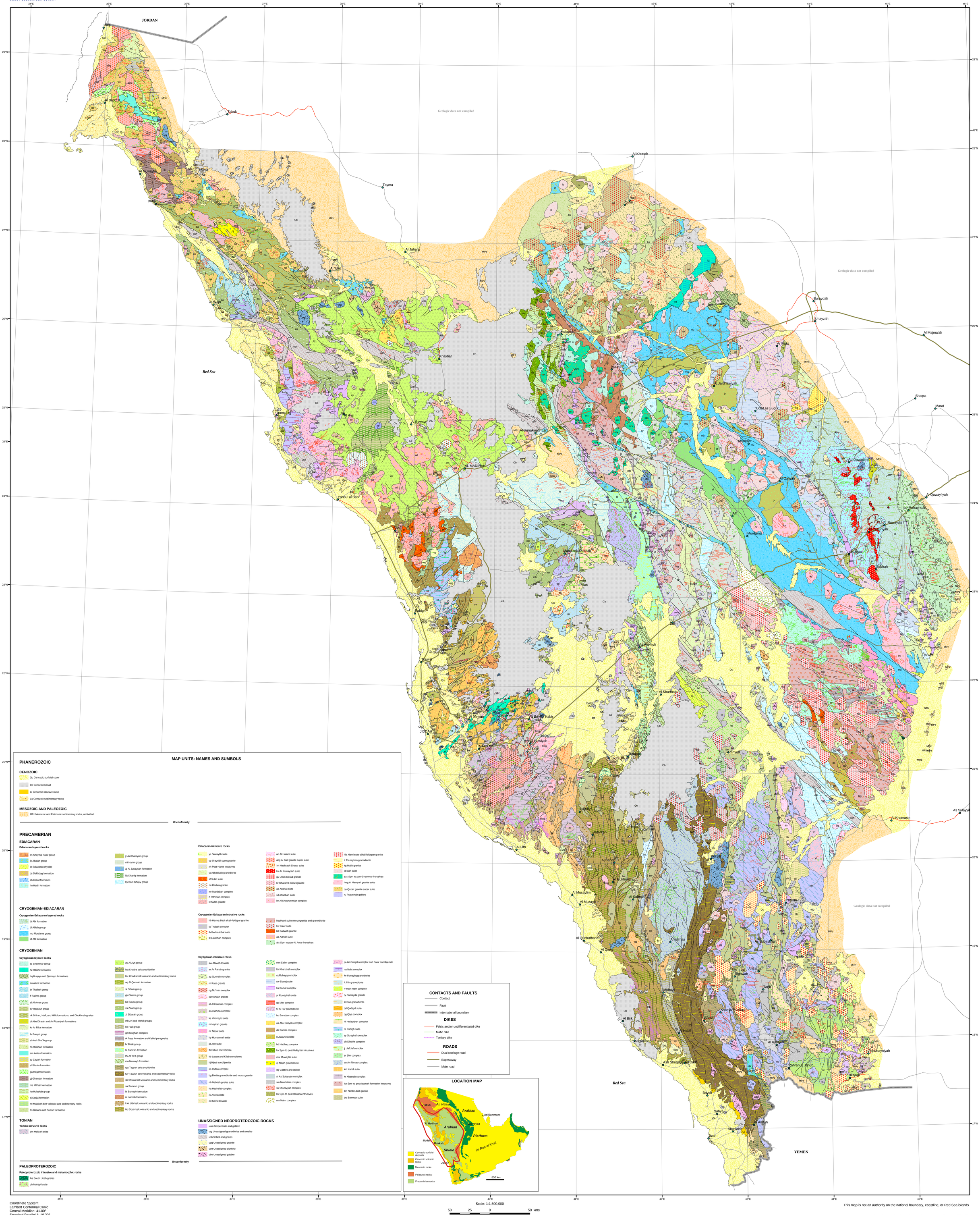
SAUDI GEOLOGICAL SURVEY
TECHNICAL REPORT SGS-TR-2006-4

KINGDOM OF SAUDI ARABIA



MAP UNITS: NAMES AND SUMBOLS

PHANEROZOIC

CENOZOIC

- Qu Cenozoic surficial cover
- Cb Cenozoic basalt
- Ci Cenozoic intrusive rocks
- Cs Cenozoic sedimentary rocks

MESOZOIC AND PALEOZOIC

- MPz Mesozoic and Paleozoic sedimentary rocks, undivided

Unconformity

PRECAMBRIAN

EDIACARAN

Ediacaran layered rocks

- sn Shayma Nasir group
- jh Jibalah group
- er Ediacaran rhyolite
- ds Dakhbag formation
- ah Habid formation
- hn Hadn formation
- jr Jurdhawiyah group
- mi Hamir group
- aj Al Junaynah formation
- kk Khaniq formation
- by Bani Ghayy group

Ediacaran intrusive rocks

- ys Suwaylih suite
- yp Uraynibi syenogranite
- xh Post-Hamir intrusives
- yt Abbasiyah granodiorite
- sf Subh suite
- rw Radwa granite
- mr Mardabah complex
- rt Rithmah complex
- kl Kuhls granite
- ao Al Hafoor suite
- abg Al Bad granite super suite
- hh Hadb ash Sharar suite
- ku Ar Ruwaydah suite
- go Umm Gerad granite
- hr Gharamil monzogranite
- aa Abanat suite
- wb Wadbah suite
- ky Al Khushaymiah complex
- hta Hami suite alkali feldspar granite
- tt Thurayban granodiorite
- kg Malik granite
- id Idah suite
- szx Syn- to post-Shammar intrusives
- hwg Al Hawiyah granite suite
- qa Qazaz granite super suite
- ru Rudayhah gabbro

CRYOGENIAN-EDIACARAN

Cryogenian-Ediacaran layered rocks

- bt Abt formation
- bl Ablah group
- mu Murdama group
- af Afif formation

Cryogenian-Ediacaran intrusive rocks

- hb Hamra Badi alkali-feldspar granite
- la Thalath complex
- th Ibn Hashbal suite
- lk Lakathah complex
- hlg Haml suite monzogranite and granodiorite
- kw Kawr suite
- bd Badwah granite
- ad Admar suite
- alx Syn- to post-Al Amar intrusives

CRYOGENIAN

Cryogenian layered rocks

- sz Shammar group
- hz Hibshi formation
- bq Buqaya and Qamayn formations
- au Atura formation
- th Thaibah group
- ff Fatima group
- al Al Amar group
- dy Hadiyah group
- nk Dhiran, Nafi, and Hilliit formations, and Dhukhnah gneiss
- di Abu Dirai'ah and Ar Ridaniyah formations
- kv Ar Rika formation
- fu Furayh group
- sb Ash Sha'ib group
- hs Hirishan formation
- am Amilas formation
- zy Zayfah formation
- sl Silassia formation
- ga Hegaf formation
- gj Ghawjah formation
- mz Milhah formation
- hu Hulayfah group
- sj Sarjuj formation
- ml Malahah belt volcanic and sedimentary rocks
- bs Banana and Sufran formation
- ay Al Ays group
- kta Khadra belt amphibolite
- ktv Khadra belt volcanic and sedimentary rocks
- aq Al Qunnah formation
- si Siham group
- gk Ghamr group
- ba Bayda group
- za Zaam group
- zf Zibarah group
- mh Arj and Mahd groups
- ho Hali group
- gm Mughah complex
- tk Tays formation and Kabid paragneiss
- br Birak group
- ta Tamran formation
- tv At Ta'if group
- ma Muwayh formation
- tya Tayyah belt amphibolite
- tyv Tayyah belt volcanic and sedimentary rock
- sh Shwas belt volcanic and sedimentary rocks
- sa Samran group
- bi Sumayir formation
- is Isamah formation
- li Al Lith belt volcanic and sedimentary rocks
- bb Bidah belt volcanic and sedimentary rocks

Cryogenian intrusive rocks

- aw Alawah tonalite
- ar Ar Rahah granite
- zg Qunnah complex
- m Ra'al granite
- ng Nu'man complex
- iq Hishash granite
- at Al Harmah complex
- ai A'ashiba complex
- ks Khishaybi suite
- nr Najirah granite
- nz Nasaf suite
- hy Humaymah suite
- jd Jidh suite
- fh Fahud microdiorite
- kb Laban and Kilab complexes
- hj Hijrat trondhjemite
- im Imdan complex
- bg Biotite granodiorite and monzogranite
- nb Nabitah gneiss suite
- ha Hashafat complex
- rx Arin tonalite
- mt Samd tonalite
- mm Salim complex
- kh Khanzirah complex
- rq Rubayq complex
- sw Suwaq suite
- ka Kamal complex
- yr Ruwaythah suite
- gs Misr complex
- fx Al Far granodiorite
- bu Burudan complex
- as Abu Safiyah complex
- da Damar complex
- ll Julaylhi tonalite
- hd Hadhaq complex
- hx Syn- to post-Hulayfah intrusives
- mw Muwaylih suite
- nj Najah granodiorite
- dg Gabbro and diorite
- st As Sutayyan complex
- sm Mushirfah complex
- su Shufayyah complex
- bx Syn- to post-Banana intrusives
- nm Naim complex
- js Jar-Salajah complex and Fara' trondhjemite
- na Nabt complex
- fw Fuwaylq granodiorite
- ft Filh granodiorite
- rr Ram Ram complex
- ry Rumayda granite
- ib Bari granodiorite
- qd Qudayd suite
- qq Qiya complex
- hf Hufayriyah complex
- ra Rabigh suite
- sy Surayhah complex
- dh Dhukhr complex
- jj Ja' Jaf complex
- sr Shir complex
- an An Nimas complex
- km Kamil suite
- kr Khasrah complex
- isx Syn- to post-Isamah formation intrusives
- lbn North Libab gneiss
- bw Buwwah suite

TONIAN

Tonian intrusive rocks

- dm Makkah suite

Unconformity

PALEOPROTEROZOIC

Paleoproterozoic intrusive and metamorphic rocks

- lbs South Libab gneiss
- uh Muhayil suite

UNASSIGNED NEOPROTEROZOIC ROCKS

- uum Serpentinite and gabbro
- ug Unassigned granodiorite and tonalite
- ush Schist and gneiss
- ugg Unassigned granite
- udd Unassigned dioritoid
- ubu Unassigned gabbro

CONTACTS AND FAULTS

- Contact
- Fault
- International boundary

DIKES

- Felsic and/or undifferentiated dike
- Mafic dike
- Tertiary dike

ROADS

- Dual carriage road
- Expessway
- Main road

LOCATION MAP

- Cenozoic surficial deposits
- Cenozoic volcanic rocks
- Mesozoic rocks
- Paleozoic rocks
- Precambrian rocks

Coordinate System:
Lambert Conformal Conic
Central Meridian: 41.00°
Standard Parallel 1: 18.33°
Standard Parallel 2: 27.66°
WGS 1984 spheroid

Scale: 1:1,500,000

50 25 0 50 kms

This map is not an authority on the national boundary, coastline, or Red Sea islands

Compilation of digital data completed by the author in 2006, with technical advice from members of the Saudi Geological Survey GIS Team.

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PROTEROZOIC GEOLOGY OF WESTERN SAUDI ARABIA

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