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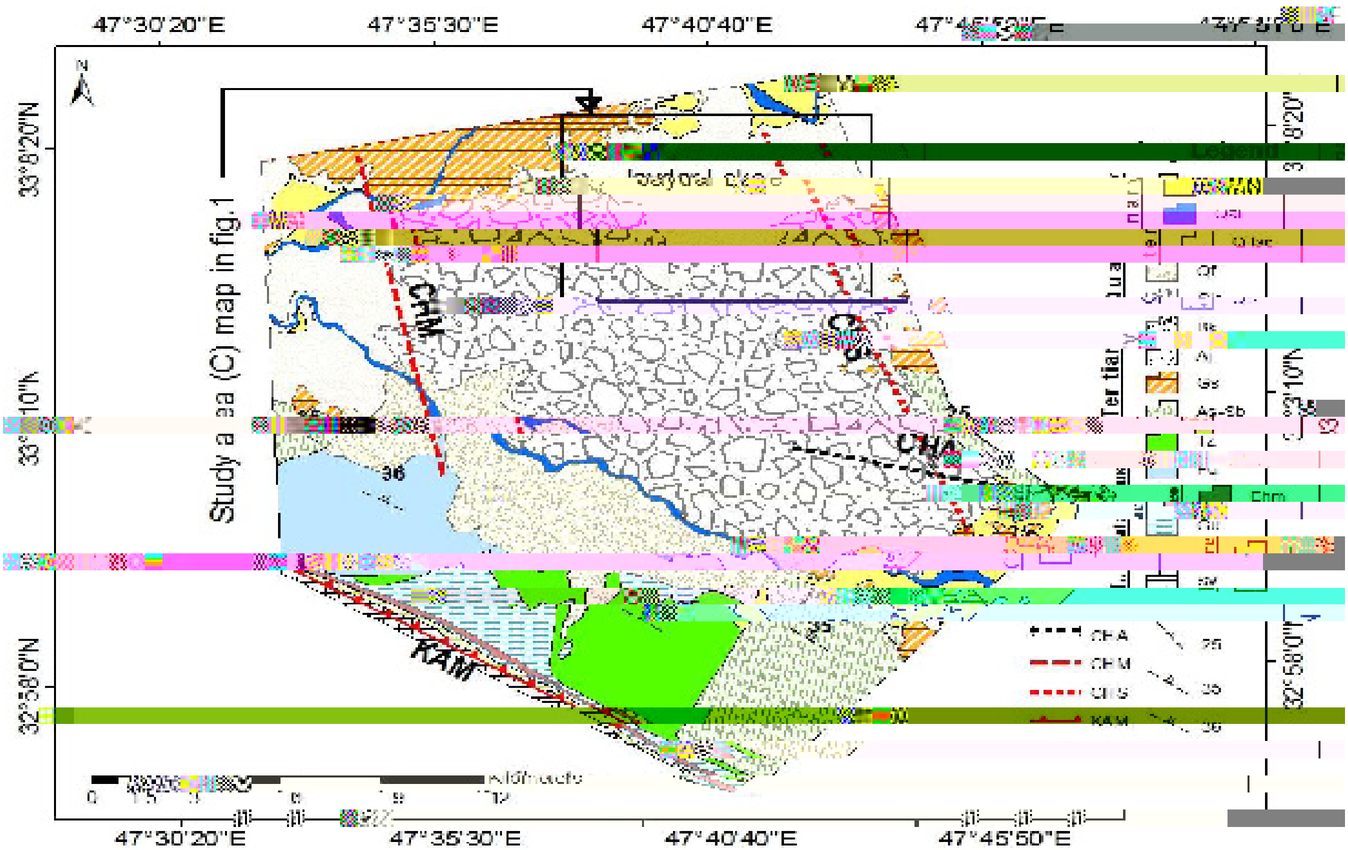
a ... a ... a ... 7 ... R ... a , ... a ... a ...
Ka ... K ... a ... a ... a ... a ... a ... a ... a ... a ... a ...
14,15] . A ... a ... a ... a ... A ... a ... F ... a ... a ...
... NE Ka ... K ... M ... a ... a ... a ... 15 K
a ... a ... a ... a ... 350 . Th ... a ... a ... a ... a ...
... a ... a ... a ... a ... 20 K a ... a ... a ... a ... a ...
... a ... 166 K ^{2} (F ... 3). A ... a ... a ... a ... a ... a ...
a ... a ... a ... NE a ... a ... a ... . Th
a ... a ... a ... a ... a ... a ... a ... a ... 14
... a ... 10037 120 ... a 16-22] . Th ... a ... a ... a ...
... a ... a ... a ... a ... a ... a ... a ... a ... a ...
S ... a ... a ... a ... 23] . T ... a ... a ... a ... a ... a ...
Ka ... a ... R ... N ... a ... S ... a R ... a ... a ...
... P -D ... a ... a ... a . Th Ka ... R ... a ... a ...
... a ... a ... a ... a ... a ... S P -D ... a ... a ...



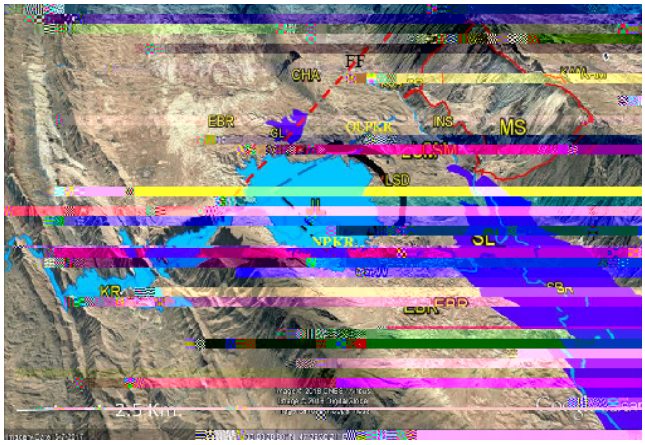
: Simplifed geological map of Seymareh Rock avalanche and its details include study area in this map: Sv Sarvak Formation, Il Ilam Formation, GU Gurpi Formation, Ehm Emam Hassan Member, Pd Pbdeh Formation, Tz Taleh Zang Formation, As-Sb Asmari-Shahbazan Formation, Gs Gachsaran Formation, Aj Aghajari Formation, Bk Bakhtiary Formation, Qls Landslide Materials Qf Alluvial Deposits, Qalc,Landslide dammed-Lake, Qal,River Terraces, Qt2 Flood Plain Deposits, CHM Cham Mehr Fault, CHS Cheshmeh Shirin Fault, KAM Kabir Kuh Fault and CHA Chenareh Anticline.

... DEM ... IRS-P5 ... EN ... (GPR), ... Jaydar La... GIS ... CAD ...

The Jaydar ... Kabir ... 8 K... 11 K... 2 K... 140 ... 220 ...

... 36 K... 65 K^2 ... 3860 ... 46.8 K^2 (Fig. 3). ... NE ... SE ... 3.1 ... 2.3 ... Maxi... Mini... 697 ... 654 ... Table 1.

... Jaydar ... 640 ... 880 ... 10 K... (Fig. 4A). ... 65 K^2 (Fig. 4B). ... 740 ... (Fig. 4B). ... 740 ... (Fig. 4C). ... 700 ... (Fig. 4D).



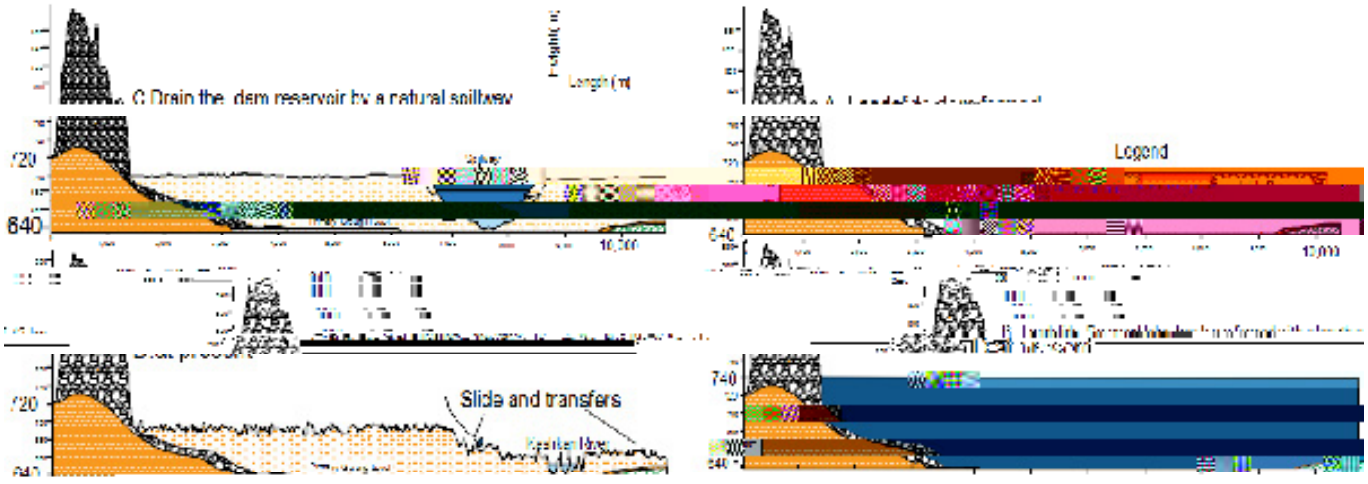
The location of the dams, landslide- dammed lakes and main scarp of Seymareh rockavalanch. Geomorphological units are delineated and described in Figure: KR Kashkan River, MKA Maleh Kouh anticline, JL Jaydar lake, EBR evaporates bed rock(Gs)(Gachsaran Fm.), SPW spill way of Jaydar lake, OLPKR old path of Kashkan River, NPKR new path of Kashkan river, GL Gori Balmak lake, CHA Chenareh anticline, SR, Seymareh River, SL Seymareh lake, FF strike slip fault, LSD landslide dam, LSM landslide materials(Qls), KAM Kabir Kuh anticline, INS in situ segments, KAR Karkheh River and MS main scarp.

Length of dam	11000 m
Width of dam	2000 m
Height of dam from the spillway bottom	80 m
Height of dam from the bed rock	140 m
Length of the dam lake	36000 m
Height of dam m.a.s.l	821 m
Volume of the dam reservoir	3860 mm^3
Area of the dam lake	65 km^2
Catchment area	9175 km^2
*All the dimensions are approximate.	

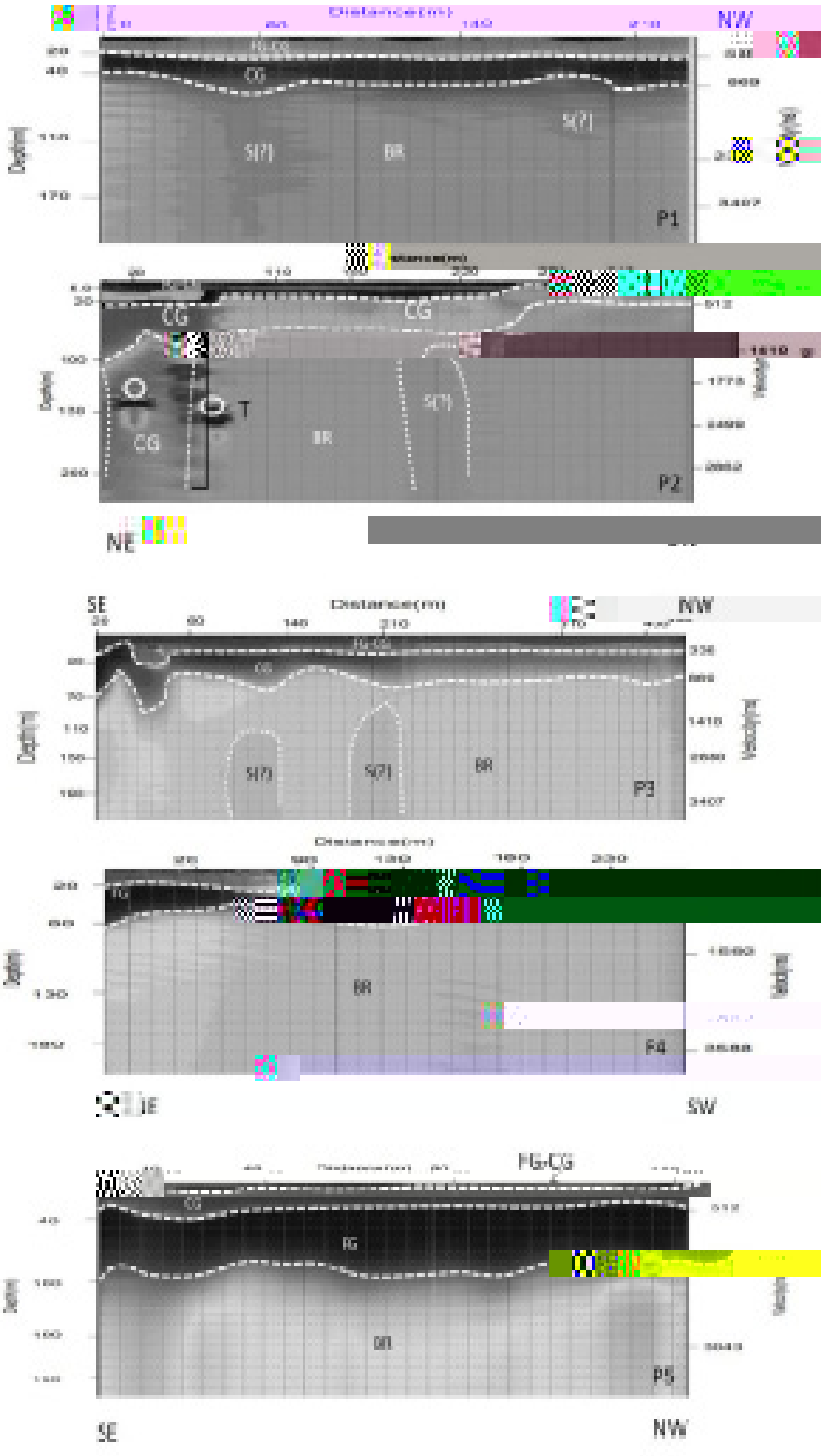
Dimensions of the landslide dam and its vicinity.

S [illegible] 12900 ^{2} [illegible] 67500 ^{2} [illegible] 12.5 K [illegible] 19% [illegible] 160 [illegible] 45 [illegible] N [illegible] Ka [illegible] R [illegible] S [illegible]

[illegible] F [illegible] Th GPR [illegible] a L a II [illegible] 6- [illegible] 10 MH [illegible] Ja [illegible] P [illegible] 1965 [illegible] 7 GPR [illegible] P1, P2, P3, P4, P5, P6 (F [illegible]) [illegible] P7 (F [illegible] 5) Th [illegible] 3 5 [illegible] 70 [illegible] 100 [illegible] AA [illegible] BB [illegible] GPR [illegible] NE-S [illegible] N -SE (F [illegible] 6). Th [illegible] AA' [illegible] 8568 [illegible] NE-S [illegible], [illegible] P2, [illegible] N P3 [illegible] P4 [illegible]. Th [illegible] 1141 , [illegible] I [illegible] P2 [illegible] A P2, [illegible] 100 . I [illegible] Th [illegible] 70 [illegible] 1141 2030 . D [illegible], 2.030 2.617 K [illegible] 587 [illegible], [illegible] x [illegible]. F 2617 8568 , [illegible] 60 [illegible] x [illegible] S [illegible] AA [illegible] N . Th BB [illegible] 7766 [illegible] N -SE [illegible] Th [illegible] P5, P2 [illegible] P6 [illegible]. Th [illegible] 872 ,

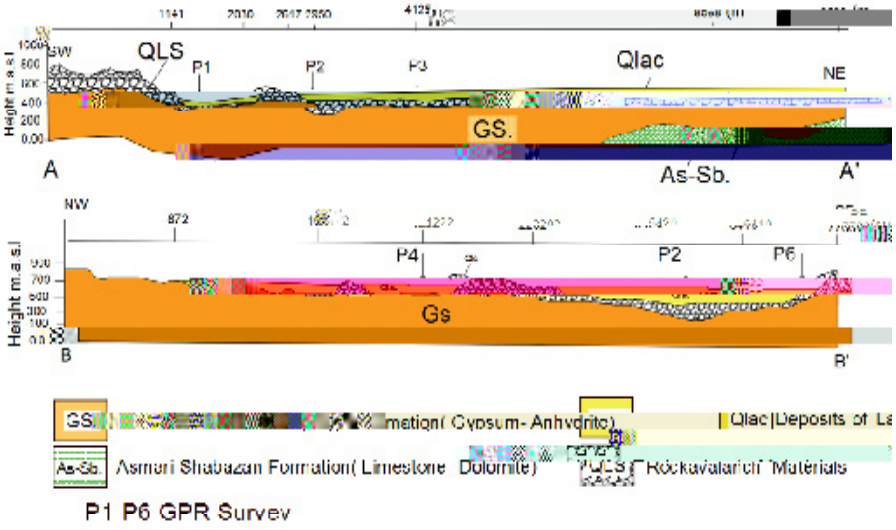


How forming the Jaydar dam and related lake (A) creation of the dam, due to the Seymareh rock avalanche, (B) Creating Dam Lake, (C) Sedimentation in the reservoir, formation of natural spillway and reservoir evacuation and (D) Current location of the Jaydar plain and current route of the Kashkan River.

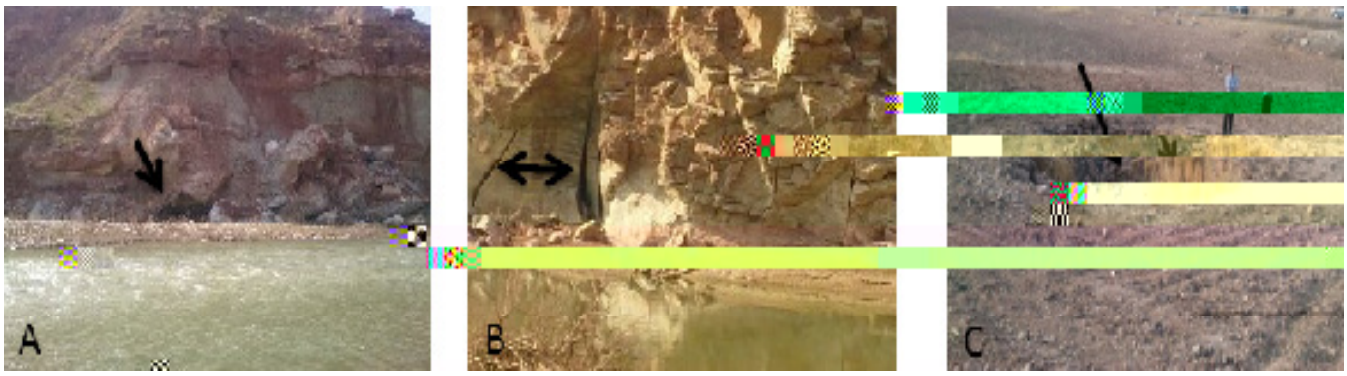


Processed and interpreted radargrams showing different features of study area. FG-CG: Fine grain size with interbed coarse grain size, CG-FG: Coarse grain size with interbed fne grain size, FG: Fine grain size layer, CG: Coares grain size layer, BR: Bedrock, S (?): Properly Solution signs, Zone of T: Old path of drainages and O sings in P2 radargram are Air refections.

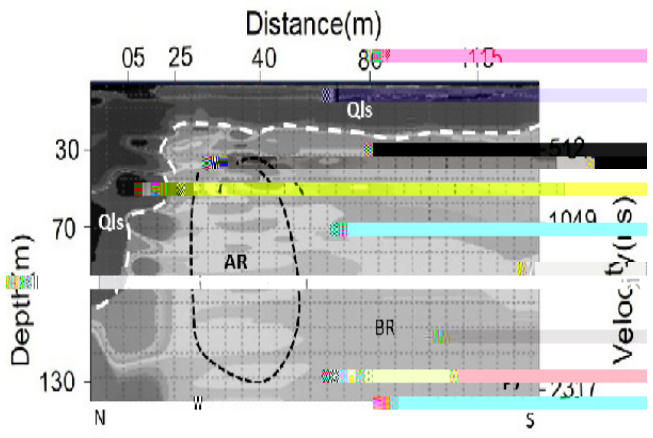
[illegible] Ga [illegible] F [illegible] Th [illegible] 200 [illegible] 10 [illegible] A [illegible] 1072 [illegible] 2202 AA [illegible] A [illegible] 4 K [illegible] 70 [illegible] Th [illegible] P2 [illegible] 120 [illegible] O [illegible] Ja [illegible]



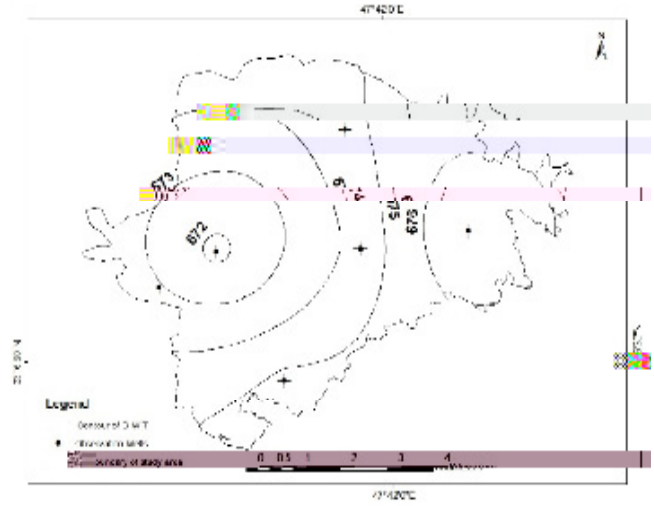
: Longitudinal cross-sections of engineering geology obtained from the GPR method.



The most important geomorphologic forms of bedrock in the study area are (A) Karstic caves (B) vertical galleries and (C) Sinkhole.



This radargram shows a valley with a depth of more than 100 m west of the Quebec wetlands south of the study. Details of the photo Qls Rockavalanch materials, AR Air refections and BR Bedrock.



Groundwater table map in study area.

	λ	Φ		
1	47°41′01″	33°07′35″	673	14
2	47°39′02″	33°07′33″	668	22
3	4741′21″	33°09′00″	675	25
4	47°40′20″	33°06′53″	677	20
5	47°43′55″	33°07′39″	680	24

: Characteristics of piezometer in study area.2

2058 K ^{2}, a 12.8% a a a. Th x a Ga a a a a a M Th a a a $CaSO_4$, $2H_2O$ Ja a La 3% J K a aj 18.4% Ja a P a a a a F , a a Ja a P a

I 10

G i F a i (I a), i , i a i F i a a i S a a i a a i a . B a a i a a S a a a i a a, a a i a i a i NE i i . Th i a i a i i a i 3 a a i a i a i Th Ja a a i , i a i a 11, 2 K a 140 a a a a ' a i i a a. S i a i i a , i a a 4 K a a ax i a a 80 . T a a i i a i a i i Th i a i a Ja a La i a , i a a i a a i a a i a a a i a a a a Th a i a a Ja a La i Ja a a i a i a a a 46.8 K ². Th P a i a,

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