

<b>Lithostratigraphic units</b>	<b>Acronym</b>	<b>Lava flow field</b>	<b>Lithology</b>	<b>Feeding system</b>	<b>Interpretation and notes</b>
Lomo Negro formation	LN	Black scoriaceous lava flows (less than 5 m thick) associated with several hornitos, tubes, ropes and tumulus. The lava flow field is characterized by a pahoehoe morphology.	High porphyritic and vesiculated lava (P.I. 35%) with abundant phenocrysts of px (3-7 mm) and ol (2-9 mm).	It is associated with an eruptive fissure, 200°N striking, located near the road at the cross between Playa del Verodal and the main road to La Virgen de Los Reyes sanctuary.	The proximity of the main road to the outcrops hides the possible emission centre. Previous paleomagnetic studies date this unit to 1499–1602 CE (Villasante-Marcos and Pavón-Carrasco, 2014).
Malpaso formation	MPS	Succession of pyroclastic units made of pumices, lapilli, coarse ashes, and lithic clasts, 3 to 81 cm thick. The pyroclastic succession is interlayered by paleosols.	Pedrazzi et al. (2014) have identified 4 depositional units related to different eruptive phases and styles, from diluted pyroclastic density currents to fallout deposits.	Malpaso formation probably belongs to the Tanganasoga eruption and/or other recent eruptions located along El Golfo collapse rim.	Risica et al. (2022) provide a paleomagnetic age between $3950 \pm 70$ and $8130 \pm 60$ BP.
Montañita Negra formation	NGT	Dark-grey to blue lava flows up to 3 m thick and 1 m thick scoria at top. The lava flow field is characterized by	Porphyritic lava (P.I. 15-20%) with phenocrysts of elongated px (1 mm)	The eruptive fissure, 245°N striking, produced two scoria cones; the lava flows move	The unit is clearly cut by a sinistral transtensive fault close to the valley. Paleomagnetic dating from

		aa morphology.	and ol (2-3 mm).	southwards.	Risica et al. (2022) provides an age between 100 BCE and 1500 CE.
Montaña Marcos formation	MC	Aphyric dark-grey lava flow. The lava flow field is characterized by aa morphology associated with large channels.	Aphyric lava (P.I. <2%).	The Montaña Marcos cinder cone collapsed toward the NW direction and a channel (305°N striking) starts from the summit of the edifice. The formation clearly overlies the MG formation in different outcrops.	Isolated flows are visible, overlaying El Golfo collapse scarp. C-14 data from Pellicer et al. (1977) provide an age between 8000-4000 BP
member c, Las Calcosas formation	LCLc	Light-blueish grey lava flow. The lava flows field is characterized by aa and pahoehoe morphologies.	Low porphyritic lava (P.I. 5-10%) with phenocrysts of ol (1-3 mm) and px (1-2 mm). Locally, agglomerated phenocrysts of px and ol are found.	A main crater and 2 subordinates vents are located into the inner crater rim of Las Cascosas cinder cone aligned with the eruptive fissure, 265°N striking.	LCLc is the youngest event of Las Calcosas cinder cone activity. Many possible emplacement ages within the last 14 ka are found by Risica et al. (2022) based on paleomagnetic dating. New geological constraints are here proposed.
member b, Las Calcosas formation	LCLb	Blueish-grey lava flow and associated cinder cone. The	Low porphyritic lava (P.I. 10-15%) with	The easternmost cinder cone, that forms Las Calcosas	The cinder cone is the second main event of Las

		lava flow field is characterized by aa and pahoehoe morphologies.	phenocrysts of ol (2-3 mm), rare px (2-3 mm).	main peak, 265°N striking.	Calcosas formation. It is overlain to the LCLa fallout deposits near the southward crater rim of the LCLa.
member a, Las Calcosas formation	LCLa	LCLc covers the entire LCLa lava flow field.		The western cinder cone of Las Calcosas edifices. It is mainly covered by fallout deposits.	The cinder cone is supposed to be the first recognizable event of Las Calcosas history. The stratigraphic relation is inferred by the presence of LCLb cone deposits overlain the member close to the southern crater rim. More eastwards an older cone whose lava flows were not recognized can be found.
Roque Barbudo formation	RBD	Up to 1.5 m thick blueish grey lava flow. The lava flow field is characterized by pahoehoe morphology. There is an alignment of hornitos (190°N direction) nearby the road to the	Low porphyritic lava (P.I. 5-10%) with phenocrysts of ol (1-4 mm), px (2-6 mm) and fsp (2-6 mm).	Although the largest hornitos seems to be the source, a scoria cone is found on the slope in front of Las Calcosas. The triple geometry of the crater rim is caused by the presence of an	Paleomagnetic dating samples were taken from Risica et al. (2022). Many possible emplacement ages within the last 14 ka were found. Here, new geological and

		landfill. Tumulus and lava tubes can be found on the field.		older dyke N-striking and associated lavas (on the E) and spatter. The RBD cone overlays the previous event.	stratigraphic constraints are suggested.
Montaña Negra formation	MNG	Up to 1.5 m thick light blue/grey lava flow. The lava flow field is characterized by pahoehoe morphology. Hornitos, tumulus, rope structures and lava flow channels are present.	Low porphyritic lava (P.I. 10%) with phenocrysts of px (1-3 mm) and ol (1-2 mm).	Alignment of 7 vents and hornitos, 260°N striking.	The MNG has been grouped by Risica et al. (2022) over the Orquilla formation. It is here divided on the basis of (i) type of the lava flows, (ii) direction of the eruptive fissure (iii) lithology. In addition, MNG is cut and affected by the presence of a sinistral transtensive fault that forced the local southward direction of the flows. Many possible paleomagnetic ages within the last 14 ka are found by Risica et al., (2022). New geological constraints are proposed here.
Hoya del Verodal formation	HV	Black-grey lava flow (less than 3 m thick) associated	Low vesiculated and high porphyritic lava	The eruptive vents are 285°N striking, and towards	The presence of a small lava flow on El Golfo

		with eruptive vents. The lava flow field is characterized by pahoehoe morphology frequently covered by vegetation.	(P.I. 35%) with phenocrysts of px (4-10 mm) and ol (3-7 mm), locally with rust-colour alteration.	the eruptive fissure of Montaña del Escobar formation.	collapse scarp clearly indicates the subsequent age of the HV formation, covering the old pre collapse deposits.
Montaña del Verodal formation	MDV	Thin blue-grey lava flow (2 m thick) associated with eruptive vents placed on the western flank of Montaña Escobar cone afterwards. The lava flow field extends limitedly toward south-west.	High porphyritic lava (P.I. 30-35%) with phenocrysts of both ol (1-5 mm) and px (1-8 mm) in similar quantity.	The spatter rampart is oriented 285°N, starting from the front of the Hoya del Verodal eruptive fissure.	The MDV shows clear vertical contact within the lower MDE and ES units. The presence of a local lava flow over El Golfo scar confirms the post-collapse age of the unit.
member c, La Cumbia formation	CUC	Up to 3 m thick dark grey lava flow covering the old cone of the CUa formation. The lava flow field is characterized by an aa morphology.	Low porphyritic lava (P.I. 5%) with phenocrysts of px only (2-4 mm).	Eruptive fissure, 245°N striking.	CUC is geographically grouped under La Cumbia formation. It represents the youngest event.
member b, La Cumbia formation	CUB	Up to 6 m thick dark-grey lava flow with (2 m thick) scoriaceous levels at the top and the bottom.	Sub-aphyric lava (P.I. 3%) with phenocrysts of px only (1 mm).	The eruptive fissure produced a large scoria cone entirely drivable due to the presence of the main road.	The scoria cone is visibly heightened above El Golfo collapse scar, indicating the subsequent origin of the unit.

member a, La Cumbia formation	CUa	Up to 2.5 m thick light/grey lava flow partially covered by the CUc and LN lava flows.	Low porphyritic lava (P.I. 5%) with elongated px (2-5 mm).	The crater rim is completely filled by CUa lava flows.	CUa is geographically grouped under La Cumbia formation. It represents the oldest event.
member f, Montaña de Orquilla formation	ORf	Up to 1.5 m thick blue-grey lava flow associated with eruptive vents on the ESE flank of Mt. Orquilla cone. The lava flow field is characterized by pahoehoe morphology.	Porphyritic lava (P.I. 15-20%) with phenocrysts of ol (1-3 mm) and px (1-4 mm).	Four eruptive vents, 105°N striking, and local hornitos.	The presence of a left-lateral dip-slip fault can control the eruptive fissure striking according to the Riedel geometry. ORf is the youngest member of the OR formation
member e, Montaña de Orquilla formation	ORe	Up to 2 m thick grey-black lava flow close to the Orquilla lighthouse. The lava flow field is characterized by pahoehoe morphology and lava tubes locally walkable.	Porphyritic lava (P.I. 20%) with phenocrysts of px (2-5 mm, locally 8 mm) and ol (1-2 mm).	Two eruptive vents, 180°N striking, along the southern flank of the Orquilla cone.	
member d, Montaña de Orquilla formation	ORD	Up to 2 m thick grey lava flow with aa morphology field. The lava flow direction is 175°N.	Porphyritic lava (P.I. 25%) with phenocrysts of px (2-6 mm) and ol (1-4 mm).	Small cinder cone overlaying an old cone (CC), NW-SE striking.	
member c, Montaña de	ORc	Dark grey scoriaceous and massive lava flows, 1.5 m	Porphyritic lava (P.I. 20-25%) with	Inner eastern side of Montaña de Orquilla cinder	Spatter deposits of ORc overlay the western crater

Orchilla formation		thick. The lava flow field is characterized by pahoehoe morphology and shows a 345°N direction.	phenocrysts of px (1-4 mm) and subordinated ol (1-3 mm).	cone.	rim of ORb, 60°N striking. Their presence is a stratigraphic constraint for the evolution of the Montaña de Orchilla formation.
member b, Montaña de Orchilla formation	ORb	Dark grey altered and scoriaceous lava flow field, characterized by pahoehoe morphology. The outcrops show alternating layers of scoriaceous and massive levels 1.5 m thick in total.	Porphyritic lava (P.I. 25%) with phenocrysts of px (2-3 mm) and ol (1-2 mm).	The main westward cinder cone of Mt. Orchilla and the most external crater rim of the eastern cone.	
member a, Montaña de Orchilla formation	ORa	Dark grey scoriaceous and altered aa lava flow field.	High porphyritic lava (P.I. 30%) with phenocrysts of px (2-5 mm) and ol (1-2 mm).	No eruptive source is found, probably covered by the subsequent members of the formation.	Stratigraphic relations are inferred by the isolated position of its channel cut by the other OR members, and by the alteration condition of its samples. This unit is at the base of the OR formation.
Punta de la Dehesa formation	DH	Altered and scoriaceous aa morphology lava flows field	Aphyric lava	The eruptive fissure, 295°N striking, produced a scoria cone	Paleomagnetic dating from Risica et al., (2022) provides an age between

					5000-2400 BCE.
Roque del Basco formation	RQ	Local pahoehoe lava flow partially overlain BL. The presence of rockfall deposits hide the eruptive vents.	No samples were taken. Notes from fieldwork activity suggested high similarity to BL lavas.	The eruptive fissure, 2°N striking, produced two small eruptive vents (20°N and 05°N striking). Spatter and scoriae are abundantly present.	Despite the similarity in lithology and its proximity to BL formation, RQ is distinguished from BL because of its different eruptive style.
Montaña Colorada formation	MCD	Altered rheomorphic lava flow near the eruptive vent. The lava flow field is covered by a thick level of reworked pyroclastic deposits.	Aphyric and highly altered lava (P.I. <2%).	The Montaña Colorada cinder cone is collapsed toward the eruptive fissure (NE-SW striking). It's very altered and covered mostly by aeolian deposits.	The formation is covered by a thick level of aeolian deposits and probably crossed by left-lateral dip slip fault.
Arenas Blancas formation	BL	Up to 3 m thick dark grey lava flow in three different levels (probably 3 different lava flow fronts). Scoriaceous level (0.2 m thick) at the bottom of the lava flow.	Low porphyritic lava (P.I. 5-10%) with phenocrysts of px (2 mm max) and rare altered ol (2 mm max).	Scoria cone from a N-S striking eruptive fissure partially hidden by the presence of different alluvial fans.	On the field 3 different terraces have been recognized from the oldest (nearby the beach) to the youngest (close to RQ front). The oldest terrace contains several shells that can be used as chronological constraint.
Los Agujeros	LAG	Blueish-grey lava flow up to	High porphyritic lava	The eruptive fissure, 245°N	The lateral front of the

formation		1.5 m thick. The lava flow field is characterized by pahoehoe morphology.	(P.I. 35%) with phenocrysts of px (1-2 mm) and ol (1-2 mm).	striking, produced a spatter cone and associated spatter rampart.	flow on the east is filling the TS' lava channel.
Punta del Verodal formation	PV	Blueish grey lava flow with several levels of scoriaceous and massive lava flow. The lava flow field is characterized by pahoehoe morphology.	Sub-aphyric lava (P.I. 2%) with phenocrysts of elongated px (1-3 mm).	No eruptive source is found for this unit. It only crops out close to the sea, and it is covered by LN formation's lavas.	Vertical stratigraphic boundary is shown close to Playa del Verodal. At the bottom of the formation several shells are present, indicating the presence of a marine terrace.
Punta Paloma formation	PL	Altered black lava flow field characterized by aa morphology.	Aphyric and highly altered lava (P.I. <2%) with phenocrysts of elongated px (1-5 mm).	No eruptive source is found for this unit. It only crops out nearby the sea and it is covered by LN formation's lavas.	
Montaña de los Toscones formation	TS	Up to 2 m thick blue-grey lava flow. The lava flow field is characterized by aa morphology and show a 250°N direction. There are 2 lava flow channels (220°N and 255°N direction).	Low porphyritic lava (P.I. 15%) with phenocrysts of px (1-2 mm), ol (1-2 mm).	Scoria cone partially collapsed towards the NE flank and link here with a second old cinder cone. Montaña de los Toscones complex collapsed on the NW flank, creating a large and high (20-50 m)	The lava flows field is cut along the HI-503 road. The channel 220°N-striking is filling by LAG formation. Furthermore, the fallout deposits of the cinder cone cover TBM lava flows field.

				escarpment. This collapse affects all lava flows in the area.	
Montaña Tagutanta formation	TA	Up to 5 m thick dark-grey lava flow with aa morphology (315°N, 320°N direction). There are several lava flow channels.	Low porphyritic lava (P.I. 10-15%) with phenocrysts of px (1-6 mm), ol (1-4 mm).	Big scoria cone and widely expanded fallout deposits that covered several lava flows in this area. The N flank partially collapsed, and the lava flow changes the direction, N-striking near the base cone to NW-striking along the slope.	The lava flow field covers a wide area and, to the west, is cut by El Golfo escarpment. This formation is older than western cliff. Considering that its fallout deposits cover the surrounding formations, they are all pre-western cliff.
Las Sabinas formation	LSB	Up to 3 m thick blueish grey lava flow with scoriaceous and massive levels, respectively 0.1 and 0.3 m thick. The lava flow field is characterized by aa and pahoehoe morphologies.	Porphyritic lava (P.I. 20%) with phenocrysts of px (2-6 mm) and ol (2-4 mm).	The eruptive fissure has been probably identified inside an abandoned field down the eastern slopes of Tenaca Cone.	Las Sabinas formation can be easily misgrouped over the TC formation. It is here supported the idea of a different origin because of the N-direction of its eruptive fissure and the differences in porphyricity. In addition, the pahoehoe lava field seems to be much younger than TC and QD.

Punta Orchilla formation	PO	Thin light blue-grey lava flow overlaying the HG formation. The lava flow field is characterized by aa morphology and presents lava channels 80 m long.	Porphyritic lava (P.I. 15-20%) with phenocrysts of px (2-5 mm, locally up to 8 mm) and ol (1-3 mm).	Two main eruptive vents, 190°N striking. The formation is the youngest of the Punta Orchilla area.	Local recent event, overlaying the HG formation and cropping out from Punta Orchilla road to the pier by the sea.
Montaña del Escobar formation	MDE	Cinder cone	Low porphyritic lava (P.I. 10%) with phenocrysts of px (1-3 mm) and ol (2-3 mm) in less extent.	The MDE cone is aligned to the 300°N striking eruptive fissure of MDV and HV, being the oldest unit of the three.	Ar-Ar dating provides an age of $33 \pm 12$ ka (Becerril et al., 2016).
La Meseta formation	LS	Dark-grey lava flow locally emplaced around the Asomada Alta formation with terminal lobes.	High porphyritic lava (P.I. 30-35%) with phenocrysts of px (1-10 mm) and ol (1-3 mm).	Small eruptive vent, 220°N striking.	
Montaña de Los Guirres formation	MG	Up to 1 m thick dark-grey lava flow, highly vegetated.	Sub-aphyric lava (P.I. 2%) with phenocrysts of px (1-2 mm) and rare ol (1-2 mm).	Eruptive rampart, 280°N striking, and two eruptive vents aligned in the same direction.	This formation is covered by MC formation, as visible on the south-west flank of Montaña Marcos.
Rincòn de la Cerca formation	RC	Up to 10 m thick, highly vegetated blue-grey lava flow (275°N, 330°N	Aphyric and altered lava (P.I. <2%).	Near El Golfo collapse, an eruptive vent with associated strongly weathered scoriae	

		direction). The lava flow field is characterized by aa morphology. El Golfo collapse escarpment cuts RC to the east.		was interpreted to be related to RC. Other vents collapsed during El Golfo collapse.	
Hoya de los Carites formation	HC	Up to 1 m thick massive light-grey lava flow with 0.2 m thick of scoriaceous level at the top and the bottom. The lava flow field is characterized by pahoehoe and aa morphologies.	High porphyritic lava (P.I. 30%) with phenocrysts of ol (1-4 mm) and px (2-7 mm).	Small eruptive vent slightly aligned with the eruptive fissure of BT formation.	The southernmost hornitos of BT formation are isolated by HC. In the valley the HC formation overlays the BT giving reliable stratigraphic contact between the two units.
Mirador de los Bascos formation	MB	Thin dark-grey lava flow. The lava flow field is characterized by pahoehoe morphology, partially covered by vegetation, and by RC fallout deposits to the north.	High porphyritic lava (P.I. 30-35%) with phenocrysts of px (2-12 mm), ol (2-10 mm)	The eruptive fissure, approximately E-W striking, produced at least 3 eruptive vents, strongly altered and vegetated.	El Golfo escarpment cuts this formation on the east side. It is possible that some of the eruptive vents collapsed during El Golfo collapse
Montaña Quemada formation	QD	Thick light blue-grey lava flow, elongated to 315°N. The lava flow field is characterized by aa	Low porphyritic lava (P.I. 15%) with phenocrysts of px (3-4 mm), locally up to 7	The Montaña Quemada cinder cone is collapsed toward the NW direction and two main channels start from	Fallout deposits from QD are widely spread over the surrounding unit. Only LSB unit cuts this lava

		morphology and several channels cut by W-escarpment.	mm, ol (2-3 mm).	the base of cone collapse.	flows field in the west zone.
La Botonadura formation	BT	Up to 35 m thick dark grey/light blueish lava flow. The lava flows field is characterized by pahoehoe morphology	Low porphyritic lava (P.I. 10-15%) with phenocrysts of px (1-6 mm).	Five eruptive vents are aligned SW-NE (220°N).	There is a noticeable stratigraphic contact between the RG fallout deposits which occupy the bottom layer, and the top layer consists of LH and BT lava flows. Although the presence of small hornitos close to the HC eruptive vent cannot be represented on a map at 1:12,500 scale, it is easily recognizable in the field.
Valle Quemado formation	VQ	Dark-grey lava flow up to 5 m thick partially covered by vegetation at high altitude. The lava flow field characterized by aa morphology and lava flow channels (290°N direction).	Low porphyritic lava (P.I. 15%) with phenocrysts of px (2-12 mm), ol (2-10 mm).	The eruptive fissure, 285°N striking, produces spatter ramparts and one probably altered hornitos on the terminal east side.	VQ and CR formations formed over older lava flows cut by El Golfo escarpment on the west side of the island.

La Hermana Menor formation	LHN	Up to 1 m thick lava flow. The lava flow field is characterized by pahoehoe morphology.	Porphyritic lava (P.I. 25-30%) with phenocrysts of px (3-25 mm) and ol (2-6 mm).	Small and hardly recognizable eruptive vent above the LH formation.	
Punta de la Playa formation	PP	Up to 1 m thick of massive dark lava flow. The lava flow field is characterized by pahoehoe morphology.	Low porphyritic lava	An eruptive fissure, W-striking, produced a small scoria cone nearby an abandoned house close to Mt. Los Charcos crater rim.	Given the small entity of the event, vertical relations are hard to define. The surrounding BAR formation is horizontally related, while the CR is clearly overlain both the units.
Escobar Est formation	ES-E	Thin dark-grey lava flow (locally towards 300°N, 330°N direction). The lava flow field is characterized by aa and pahoehoe morphologies. One phreatomagmatic deposit, associated to ES-S, is present near the vent. Lava flow covers ES inside a valley near Mt. Escobar.	Low porphyritic lava (P.I. 10-15%) with phenocrysts of px (1-16 mm), ol (1-3 mm).	Small and partially eroded cinder cone. To the south of its crater rim a phreatomagmatic deposit, dipping 265°/10°, is found. Presence of lithic and juvenile materials.	The lava flows propagate towards west crossing the HI-500 road before being covered by MDV formation. Furthermore, in the lava field there is an old dyke, very altered.

El Barranco formation	BAR	Up to 0.7 m thick dark lava flow mostly outcropping as a lava channel near Mt. de Los Charcos. The lava flow field is characterized by aa morphology.		Small eruptive vent partially covered by CR's lava flows.	Given the small entity of the event, vertical relations are hard to define. The surrounding PP formation is horizontally related, while the CR is clearly overlain both the units.
Las Cascadas formation	LCS	Up to 3 m thick dark grey lava flow with a scoriaceous level at the bottom. The lava flow field is characterized by aa morphology, direction to 220°N.	Porphyritic lava (P.I. 25%) with phenocrysts of px (3-7 mm) and ol (2-5 mm).	Local eruptive vent partially overlains the LP formation's lava flows.	LCS, LMT and LHM are laterally juxtaposed on the stratigraphic relation diagram because of lack of any vertical relation.
La Manta formation	LMT	Up to 0.5 m thick dark grey lava flow locally outcropping. The lava flow field is characterized by pahoehoe morphology.	Porphyritic lava (P.I. 25%) with phenocrysts of ol (1-4 mm), px (1-8 mm).	190°N striking eruptive vent entirely circled by TBG fallout deposits.	LCS, LMT and LHM are laterally juxtaposed on the stratigraphic relation diagram because of lack of any vertical relation.
La Hermana Major formation	LHM	Dark grey lava flow field frequently covered by vegetation.	Porphyritic lava (P.I. 20%) with phenocrysts of px (2-8 mm), ol (1-3 mm).	Four eruptive vents aligned with a 175°N striking eruptive fissure.	LCS, LMT and LHM are laterally juxtaposed on the stratigraphic relation diagram because of lack of any vertical relation.

Montaña Escobar formation	ES	Blue-grey lava flow up to 5 m thick (285°N, locally 005°N direction). The lava flow field is characterized by pahoehoe and aa morphologies, lava channel and rope structures.	Aphyric and massive lava (P.I. <2%).	The eruptive fissure, NW-SE striking, produced a cinder cone partially collapsed on the NW flank and later an eruptive vent on the north-western flank of major cone. These two different feeding systems produced aa and pahoehoe lava flows.	
El Crees formation	CR	Dark grey lava flow up to 1.5 m thick. The lava flow field is characterized by pahoehoe morphologies although locally aa type. Lava flow channels are present.	Porphyritic lava (P.I. 20-25%) with phenocrysts of px (2 - 12 mm) and rare altered ol (1-2 mm).	The eruptive fissure produced a scoria cone 250°N striking and two eruptive vents aligned along 245°N direction. More eastwards another eruptive vent is present.	On the road close to Mt. Los Charcos, it crops out above CH and VQ formations.
Los Pastores formation	LPS	Up to 1.5 m thick grey lava flow. The local morphology suggests a pahoehoe lava flow field.	Sub-aphyric lava (P.I. 2%) with phenocrysts of ol (1-2 mm).	A scoria cone is partially outcropping in the stream.	Locally outcropping in a small stream. Stratigraphical constraints are difficult to identify.
Montaña de los Charcos formation	CH	Cinder cone up to 20 m high		One big scoria cone and two small scoria vents along a 295°N striking eruptive fissure.	HI-500 road cuts the fallout deposits and south-eastern vent. Collapse escarpment cuts the large

					scoria cone. On its NW flank, there are several eroded scoria cones.
El Vallito formation	VA	Light-grey lava flow (280°N direction) with lava channels.	High porphyritic lava (P.I. 40%) with phenocrysts of ol (2-5 mm) and px (2-6 mm).	Small cone partially covered by CR's lavas.	The CR lavas constrain the upper limit of the unit. The older CD formation defines the lower boundary.
Caldereta del Tabaibal Manso formation	TBM	Light blue-grey lava flow up to 10 m thick. The lava flow field is characterized by aa morphology with lava flow channels (200°N and 240°N direction) cut by TS escarpment.	Porphyritic lava (P.I. 20-25%) with phenocrysts of ol (1-3 mm), px (2-7 mm), presence of zeolites.	Two cinder cones elongate towards SW-NE. They are altered and partially vegetated.	The lava channel in particular and part of the lava flows are cut by TS escarpment of flank collapse. This suggests that the collapse occurred later than TBM formation, but this formation is younger than TS old cinder cone (CC) and older than TN scoria cone.
Montaña del Barco formation	BC	Greyish lava flow up to 2 m thick associated with scoria cone. The lava flow field is characterized by aa morphology and shows a	Sub-aphyric lava (P.I. 3%) with phenocrysts of px (1-7 mm) and rare ol (1-2 mm).	Scoria cone partially collapsed towards the E and S flanks.	Nearby Los Toscones cone a vertical relation between VG and BC is shown. Clearly BC continues down the slope, while VG

		SW direction. Lava channels are present.			stops against the crater rims.
Cordero formation	CD	Up to 2 m thick dark grey/blueish lava flow. The lava flow field is characterized by aa morphology and lava flow channels.	Aphyric lava (P.I. <2%) with rare phenocryst of px.	A scoria cone, E-W elongated, overlays LDT.	
Cruz De Bernardo formation	BRN	Dark grey pahoehoe lava flow field made of thin flow (up to 0.4 m thick) with ropy structures and hardly recognizable eruptive vent. The lava flow direction is 280°N.	High porphyritic lava (P.I. 35%) with phenocrysts of px (1-8 mm) and ol (2-4 mm).	The increasing presence of scoriae suggests the presence of an eruptive vent very close to the main road, where the lava was sampled.	Local event mainly cropping out close to the road. Stratigraphic constraints are unidentifiable.
Quemadillo formation	QDL	Up to 1.5 m thick blueish dark grey lava flows. The lava flow field is characterized by aa morphology and shows a SW direction. Large lava channels up to 100 m long are present.	Porphyritic lava (P.I. 20%) with phenocrysts of px (1-5 mm).	The eruptive fissure, SW-striking, produced a large scoria cone. Two channels on the W and E of the crater rim propagate down the slope surrounding an old spatter rampart structure, SW-striking. MNG and NGT cut the lava flows.	Different lava channels are cut by BC formation lava flows and constrain the age of QDL formation to an older event, while in the SW the flows of QDL cut HG formation.

Calderetòn de la Higuera formation	HG	Up to 2.5 m thick light-grey lava flow with a top layer level of scoriaceous lava (1.5 m thick). The lava flow field is characterized by aa morphology and shows southwards direction. Several channels are present.	Low porphyritic lava (P.I. 5-10%) with phenocrysts of px (2-5 mm, locally up to 8 mm) and rare ol (1-3 mm).	The eruptive fissure, 220°N and 205°N striking, produced scoria cones and 3 eruptive vents. Two dikes are present.	The HG lava flows are cut by QDL formation on the W and by TBB on the E. On the southern boundary of the lava flows field the PO formation overlays and cuts its channels.
Tabaibal formation	TBB	Up to 2 m thick blueish-grey lava flow. The lava flow field is characterized by aa morphology.	Aphyric lava (P.I. <2%).		The lava channel, 235°N striking, is cut by HG's lavas, giving clear stratigraphical constraints.
member d, Virgen de los Reyes formation	VGd	Up to 1.5 m thick dark-grey lava flow. The lava flow field morphology is almost covered by vegetation.	Porphyritic lava (P.I. 25%) with phenocrysts of px (2-8 mm) and ol (2-6 mm).	An isolated cinder cone located north to Virgen de los Reyes sanctuary.	The unit flows in the middle of the eruptive fissure of CV formation, partially overlain the southern crater rim of the western CV cone. VGd is grouped into VG formation although it used a different eruptive fissure.
member c, Virgen de los Reyes formation	VGc	Up to 2 m thick dark grey lava flow. The lava flow field is characterized by aa	Low porphyritic lava (P.I. 10-15%) with phenocrysts of px (2-7	The western eruptive vent, 275°N striking, is aligned with the VG eruptive fissure.	The VGc is the last event of the VG eruptive fissure. Inside the lava flows field

		morphology and covered by vegetation.	mm) and ol (1-2 mm).		an isolated dyke is mapped.
member b, Virgen de los Reyes formation	VGb	Up to 2.5 m thick grey lava flow with a scoriaceous level (0.7 m thick) at the top and the bottom. The lava flow field is characterized by aa morphology.	Aphyric lava (P.I. <2%).	The eruptive fissure, 275°N striking, produced a spatter cone close to Virgen de Los Reyes sanctuary.	Slight differences were encountered within the VGa lavas' lithology. However, the member was discriminated based on change in porphyricity and presence of two separate cones.
member a, Virgen de los Reyes formation	VGa	Blueish-grey lava flow up to 0.7 m thick. The lava flows field is characterized by aa morphology.	Sub-aphyric lava (P.I. 2%) with phenocrysts of px (2-3 mm, locally up to 8 mm).	The eruptive fissure, 275°N striking, produced a spatter cone where the Virgen de Los Reyes sanctuary is located.	The presence of an old cone right down the street to the sanctuary is inferred by satellite images.
Los Moles formation	LM	Poorly recognizable lava flow of mixed type morphology field. The southernmost limits have been interpreted by satellite images.	No samples were taken. Medium porphyritic lava similar to ET samples.	The eruptive fissure, 220°N striking, produces an eruptive vent and a spatter rampart.	
Montaña Tenaca	TCd	Dark-grey lava flows up to 2 m thick with pahoehoe	Low porphyritic lava (P.I. 8%) with	The eruptive fissure, 320°N-striking, produced 3 eruptive	TCd is grouped under TC formation although it used

Formation		morphology; ropy structure suggests 290°N-striking flow. The lava flows are stopped by the younger LSB and QD formations.	phenocrysts of px (1-3 mm), ol (1-2 mm).	vents and a spatter, scoria rampart. These structures are placed on the Mt. Tenaca (TC) NW flank.	a different eruptive fissure. Near HI-500 road, QD fallout deposits covered this older formation.
Montaña Tenaca formation member c	TCc	Thin dark-grey lava flow (330°N direction) associated with eruptive vents. The lava flow field is characterized by aa morphology, lava flow channels (300°N direction) in contact with QD.	Low porphyritic lava (P.I. 15%) with phenocrysts of ol (1-4 mm), px (1-3 mm).	The eruptive fissure, 330°N striking, produced an eruptive vent placed on the NW flank of Montaña Tenaca.	The lithology and porphyricity are similar to TCb. TCc is grouped under TC formation, but it used a different eruptive fissure, approximately aligned with TCd. The HI-500 road cuts this formation and further west QD fallout deposits and lava flow cover it.
Montaña Tenaca formation member b	TCb	Light blue-grey lava flow up to 5 m thick showing an alternation of massive (0,3-0,4 m) and scoriaceous (0,5 m) levels. Presence of lava flow channels with different trends (220°N, 260°N direction) along the southwestern flank of	Porphyritic lava (P.I. 15%) with phenocrysts of ol (1-3 mm), locally up to 7 mm, and abundant px (1-4 mm).	The eruptive fissure, NW-striking, produced a large scoria cone. TCc and TCd cut the lava flows on the western flank, beyond RBD at a lower altitude. The edifice of Mt. Tenaca is divided in two large scoria cones (TCb and TCa), and	In the lava flows field are present four old scoria cone (on the SW flank) and one dyke 235°N-striking. The HI-500 road cuts all lava flows field allowing to recognize morphologies and lithology of this formation.

		Montaña Tenaca.		another in the middle, grouped lithologically on TCb formation.	
Montaña Tenaca formation member a	TCa	Up to 10 m thick lava flow from the crater rim of the oldest scoria cone. The lava flow field is characterized by aa morphology, partially covered by TCb fallout deposits.	Porphyritic lava (P.I. 15-20%) with phenocrysts of ol (1-4 mm), px (1-4 mm).	The eruptive fissure, NW-striking, produced a large scoria cone, where later TCb scoria cones grew up inside.	TCa is grouped under Montaña Tenaca formation. It represents the oldest event of the formation. In this area there are several old vents, partially covered by younger lava flows. At the crossroads between HI-500 and HI-503 roads a bomb (6x2,5 m) has been observed.
Roque Pequena formation	RP	Highly scoriaceous lava flow up to 0.6 m thick. At the top and the bottom of the lava flows there are scoriaceous levels. The lava flow field is characterized by aa morphology.	Aphyric lava (P.I. <2%). Rarely acicular px phenocrysts of 1-4 mm are present.	Uncertain source of the lava flows, probably located at the elevation of 969 m, below the RG cone.	Fallout deposits from RG are widely spread over the surrounding unit, making vertical correlation and flow continuity hard to understand.
Montaña de las Cuevas formation	CV	Thin black-grey lava flow associated with two scoria	Low porphyritic lava (P.I. 10%) with	The eruptive fissure, 265°N striking, produced a large	On the top of sequence, there is a pellicular

		cones. The lava flow field is characterized by aa morphology partially covered by vegetation and epiclastic deposits.	phenocrysts of px (2-10 mm), reddish, altered ol (2-3 mm), fsp (1 mm).	scoria cone on the NE side and another scoria cone partially collapsed on the SW side.	phreatomagmatic level, formed during magma-water interaction. The presence of bioclastic shells indicates a strong action of the wind.
Pozo de los Negros formation	NG	Dark-grey blue lava flow (250°N direction) up to 3 m thick with scoriaceous (0.3-0.4 m thick) and massive (0.8-1 m thick) levels. The lava flow field is characterized by an aa morphology.	High porphyritic lava (P.I. 30%) with abundant phenocrysts of px (2-7 mm) and ol (1-3 mm).	Left spatter rampart very altered and eroded by atmospheric agents. TCb and TCc overlay the south and north rampart flanks.	
La Camella formation	CM	Blueish-grey lava flow and associated cinder cone and spatter rampart. The lava flow field is characterized by aa morphology.	Aphyric and highly vesiculated lava (P.I. <2%).	Small scoria cone and associated spatter ramparts. The CV and LSB covered this formation.	
member b, El Refugio formation	ERb	Light blueish/grey lava flows and spatter close to the source of the eruption. Local structures of ropes suggest a pahoehoe morphology lava	Porphyritic lava (P.I. 20%) with phenocrysts of ol (1-3 mm) and px (1-4 mm).	Small hornitos and associated spatter flowing westward within the scoria cone of ERa.	The small entity of the event is difficult to depict in a 12,500-scale map, but it is clearly visible on the field. The presence of

		flow field.			scoriae overlain the older ERa cone constrains chronologically this formation.
member a, El Refugio formation	ERa	Blueish grey lava flow up to 1 m thick (220°N direction).	Porphyritic lava (P.I. 20-25%) with phenocrysts of px (1-5 mm) and ol (1-3 mm).	Scoria cone grown within the older cone and partially covered by spatter of ERb formation.	An old cone is surrounding the ERa formation without associated lava flows. The scoriae of ERa cone are found overlaying the older ET formation giving a relative chronological constraint.
El Pastor formation	EP	Light blue-grey lava flow at least 1 m thick. The lava flow field is supposed to have an aa morphology, covered by vegetation.	Low porphyritic lava (P.I. 5%) with phenocrysts of px (2-6 mm), ol (2-4 mm).	Small cone partially covered by vegetation.	
Fuga Caida formation	CA	Up to 10 m thick blue-grey lava flow (320°N, 340°N direction) highly vegetated with long extension. CA fallout deposits can be found near El Golfo escarpment.	Aphyric and massive lava (P.I. < 2%).	Eruptive vent is located beyond El Golfo escarpment and cut by the collapse event.	

Mirador de Sabinosa formation	MSB	Dark-grey lava flow surrounding an old cone near the western cliff. The lava flow direction is 310°N and the lava flow field is characterized by aa morphology, partially covered by RC.	Medium porphyritic lava similar to TA samples.	Eruptive vent is located beyond El Golfo escarpment and cut by the collapse event.	
El Sabinar formation	SB	Dark-grey lava flow (290°N direction). The lava flow field is characterized by aa morphology and lava flow channels.	Sub-aphyric lava (P.I. 3%) with phenocrysts of px (1-5 mm), ol (1 mm).	Eruptive vent is located beyond El Golfo escarpment and cut by the collapse event.	
El Tomillar Antiguo formation	ETA	Up to 15 m thick light blue-grey lava flow (240°N direction). The lava flow field is characterized by aa morphology, channels, lava tubes and tumulus.	Porphyritic lava (P.I. 15%) with phenocrysts of px (1-4 mm), ol (1-2 mm).	Large cinder cone, totally vegetated and partially collapsed along the western flank, where a wide lava channel starts.	Locally the thick fallout deposit covers the oldest LBN formation. The ERA-b-LM-HM-CJ formations are overlain by this deposit.
Lomo del Trebòl formation	LDT	Altered and soil covered black lava flow field characterized by aa morphology. Presence of anthropic terrace and grazing	Sub-aphyric lava (P.I. 3%) with phenocrysts of px (1 mm), ol (1-2mm).	No eruptive source is found for this unit. Near El Golfo escarpment the lava field is very width and complex suggesting large distance	

		animals.		from the vent.	
Cascajo formation	CJ	At least 4.5 m thick, highly vegetated blue-grey lava flow, composed of massive (2.5 m thick) and scoriaceous (2 m thick) levels. The lava flow field is characterized by aa morphology and channels directly southwards surrounding an old cone near Lomo de la Barqueta de los Mozos.	High porphyritic lava (P.I. 30-35%) with phenocrysts of px (3-10 mm), ol (2-4 mm).	Eruptive vent is located beyond El Golfo escarpment and cut by the collapse event. Near the escarpment, locally are present scoria deposits and an old cone not clearly linked to CJ formation.	
Golfo de Julan formation	GJ	Up to 25 m thick light-grey lava flow. The lava flow field is characterized by aa morphology and lava flow channels.	Low porphyritic lava (P.I. 5%) with phenocrysts of px and plg.		The formation covers all the Golfo de Julán. Probably the lava flows are ancient as the main structures have been covered by more recent lava flows.
Llanos de Binto formation	LBN	Thin, weathered lava flow (215°N direction). Probably, the lava flow field is characterized by aa	Aphyric and massive lava (P.I. <2%).	Near the escarpment, are present scoria deposits and an old cone, partially collapsed, but probably	The lava flows field, where it is present, is not covered by younger HM and ETA formations due

		morphology covered by vegetation.		linked to LBN formation.	to the remobilization of fallout deposits.
Fuente de Rodrigo formation	FR	Up to 7 m thick grey lava flow, highly vegetated in the northernmost part. The lava field is characterized by aa morphology and several sinuous lava flow channels.	High porphyritic lava (P.I. 35%) with phenocrysts of ol (2-10 mm), px (3-8 mm).	Along the eruptive fissure, approximately N-S striking, eruptive vents, very altered and vegetated, were emplaced. Other vents collapsed during El Golfo collapse.	
Julan formation	JL	Up to 60 m thick grey lava flow, with scoriaceous (0.5 m thick) and massive (1-10 m thick) levels. The lava flow field is characterized by aa morphology and several lava flow channels.	Low porphyritic lava (P.I. 5-10%) with phenocrysts of ol (1-3 mm), px (1-2 mm).	Eruptive source was located on the collapsed volcanic sector. Near the escarpment JL is covered by MMD formation.	Along the HI-400 it is possible to observe some old cones with dykes (170°N striking), overlain or surrounded by RJ. These lava flows are very thick and probably associated to long and/or intensive eruptive event.
Montaña de los Humilladeros formation	LH	Up to 5 m thick light blue-grey lava flow. l. The lava flow field is characterized by aa morphology.	Low porphyritic lava (P.I. 10-15%) with phenocrysts of px (3-6 mm, locally up to 10 mm), ol (1-3 mm) in less extent.		LH is covered by a younger thin fallout deposit without a source and constrained at 3980 – 3790 BCE (Pérez Torrado et al., 2011).

Las Laderas formation	LL	At least 2 m thick blue-grey lava flow (170°N direction). The lava flow field is characterized by aa morphology and lava flow channels.	Aphyric and massive lava (P.I. <2%).	Eruptive vent is located beyond El Golfo escarpment and cut by the collapse event. Near the escarpment RJ is covered by MMD formation, but locally are present decimetric LL bombs suggesting proximity to the vent.	Along the slope up to HI-400 road, the lava field is partially covered by fallout deposits, therefore the contact between LL and FR is not visible.
Los Picos formations	LPI				Ancient lava flows cut by El Golfo collapse surface.
Fuente del Binto formation	FB	At least 2 m thick blue-grey lava flow (locally 195°N direction). The lava flow field is characterized by aa morphology.	Porphyritic lava (P.I. 15%) with phenocryst of px (1-5 mm), ol (1-4 mm).	Near the escarpment, scoria deposits and an old cone, partially collapsed, are present. Here, MMD covers everything and does not allow to identify the possible source of FB.	Along the HI-400 road, LL is clearly overlain the FB formation surrounding a bump. Also, along the lava field there are isolated old cones.
Las Calzadillas formation	LC	Up to 40 m thick light-grey lava flow. The lava flow field is characterized by aa morphology and lava flow channels.	Low porphyritic lava (P.I. 5%) with phenocrysts of px and plg with variable size. Px and plg xenocrysts are also present.		In proximity to Cueva del Bucarón, the lava flow created several kilometer-long and up to 40 m thick channels.

La Niebla formation	NB	Up to 6 m thick light-grey lava flow (SE direction) with scoriaceous (0.5 m thick) and massive (0.8-1 m thick) levels. The lava flow field is characterized by aa morphology.	Porphyritic lava (P.I. 15-20%) with phenocryst of px (1-6 mm), ol (1-4 mm).	Near the escarpment, are present scoria deposits and an old cone, partially collapsed. Here, MMD formation covers everything and doesn't allow to identify the possible source.	
Espigon de los Fares formation	JX	Up to 30 m thick dark-grey lava flow (150°N direction). The lava flow field is characterized by aa morphology and lava flow channels.	Low porphyritic lava (P.I. 10-15%) with phenocrysts of ol (1-4 mm), px (1-5 mm) and xenoliths of ol up to 10 cm.	Eruptive vent is located beyond El Golfo escarpment and cut by the collapse event. Near the escarpment and locally in several valley, JX is covered by MMD formation.	This formation is very extensive along HI-400 road. In the eastern part, it is covered by a wide Canarian Pine Forest.
La Banera formation	LB	Blue-grey lava flow (240°N direction). The lava flow field is characterized by aa morphology, partially covered by vegetation and HM fallout deposits (partly reworked).	Low porphyritic lava (P.I. 5-10%) with phenocrysts of px (1-3 mm), ol (1-2 mm).	Small eruptive vent altered and covered by HM and by anthropic construction.	Along the southwestern slope, LB can be seen where HM fallout deposits were washed away.
Montaña de los Picos formation	LP	Light blue-grey lava flow up to 5 m thick. Two lava channels flow to the	Aphyric and massive lava (P.I. <2%).	Two scoria cones partially eroded and flank collapsed. The LB lava flows enter in	LP is younger than TBG, but in the west valley of TBG two deposits (an

		southern and western slope around Mt. Tembargena cinder cone.		the eastern one.	epiclastic deposit related to M Tembargena and a phreatomagmatic deposit) overlain LP. Probably FA is related to the last LP activity. The VGa lavas are underlain.
Ventejea formation	VJ	Up to 4 m thick blue-grey lava flow with massive (1.5 m thick) and scoriaceous (0.5 m thick) levels. The lava flow field is totally vegetated and characterized by aa morphology.	Porphyritic lava (P.I. 20%) with phenocrysts of px (1-5 mm), ol (1-2 mm).	Near the escarpment, are present scoria deposits and an old cone, partially collapsed but probably linked to CJ formation.	Along the southwestern slope, VJ can be seen where HM fallout deposits were washed away. The LB lavas are overlain.
General Serrador East formation	GEN-E	Blue-grey lava flow (250°N direction). The lava flow field is characterized by aa morphology.	Low porphyritic lava (P.I. 10-15%) with phenocrysts of px (1-4 mm), ol (1-2 mm).	Three eruptive vents are along an eruptive fissure elongate towards southwestward. Highly altered and soil covered. Probably, other vents collapsed during El Golfo collapse.	The lava flow field front is observed near El Pastor cone.
General Serrador formation	GEN	Blue-grey lava flow (230°N direction). The lava flow field is characterized by aa	Porphyritic lava (P.I. 20%) with phenocrysts of px (1-8	One eruptive vent is close to a Monument along an eruptive fissure elongate	The vent is located near the General Serrador Monument, on the edge of

		morphology covered by vegetation.	mm), ol (1-3 mm).	towards south-westward. Highly altered and soil covered. Probably, other vents collapsed during El Golfo collapse.	escarpment.
Jabillo formation	JA	Dark-grey lava flow propagates southward. The lava flow field is characterized by aa morphology, partially covered by vegetation.	Low porphyritic lava (P.I. 5-10%) with phenocrysts of px (2-7mm).	Eruptive vent is located beyond El Golfo escarpment and cut by the collapse event. Near the escarpment and locally in several valley, JA is covered by MMD formation.	
Roque Grande formation	RG	Cinder cone and distal fallout deposits up to 4 m thick with highly weathered scoriae.	No lava samples were taken. Scoriae have medium to low porphyricity.	An eruptive fissure, SW striking, produced a large scoria cone, partially collapsed toward the eruptive fissure direction.	The same eruptive fissure was reused by RP formation. The fallout deposits extremely thick suggest an intense explosive activity.
Montaña Tembargena formation	TBG	Up to 30 m thick blue-grey lava flow. The lava flow field is characterized by aa morphology and channels. The lava flow direction is 240°N, surrounding old	Porphyritic lava (P.I. 25%) with phenocrysts of px (1-2 mm), locally up to 12 mm, ol (2-3 mm) and plg (1-3 mm).	Cinder cone totally vegetated and partially collapsed along the western flank. Along HI-500 road is present an epiclastic deposit probably related to this	On the east side there are many eruptive vents. This area was densely subject to the opening of eruptive fissures NE-SW striking. Near the cone, thick

		cones, but nearby covered by more recent lava flows.		collapse.	fallout deposits cover two old cones that can be lithologically connected to the same formation.
Montaña Asomada Alta formation	ASA	Up to 20 m thick dark-blue grey lava flow and fallout deposits underlain TBG. The lava flow (105°N direction) is clearly visible along the eastern escarpment of the cone.	Porphyritic lava (P.I. 20%) with phenocrysts of px (1-8 mm), ol (1-3 mm).	Cinder cone, highly altered and collapsed. This cone and Mt. Tembargena cone are the oldest edifices mapped on this area.	On the north side there is a small and pellicular phreatomagmatic deposit.
Montaña del Teje formation	TJ	Light blue-grey lava flow. The lava flow field is characterized by aa morphology, partially covered by ETA. Lava flow channels (210°N direction) are present.	Porphyritic lava (P.I. 20%) with phenocrysts of px (1-5 mm), ol (1-4 mm).	Scoria cone collapsed and very altered.	
El Comandante formation	CO	Succession made of thick and subparallel lava flows, sometimes interbedded with scoria and spatter cones.	Porphyritic lava (P.I.10-20%) with phenocrysts of px and ol variable in size and quantity.	We cannot recognize any feeding system because we are observing the distal facies of a complex lava flow field fed by eruptive fissures located into the	Lava flows distal facies succession eroded until forming a cliff during a sea level stage.

				present area of El Golfo collapse.	
La Mazorca formation	LZ	Lava flow partially covered by younger formations.	High porphyritic lava (P.I. 30%) with abundant phenocrysts of px (1-8 mm), ol (1-4 mm).		Typically, it can be seen along bumps, on the HI-400 road. Also, one lava tube, 160°N striking, is present.
Camino del Julan formation	CJL	Lava flow field characterized by aa morphology, partially covered by younger formations.	Porphyritic lava (P.I.15-20%) with phenocrysts of ol (1-6 mm), px (2-4 mm).		Typically, it can be seen along bumps, on the HI-400 road.
Los Valles formation	LVA	Up to 4 m thick lava flow. The lava flow field is characterized by aa morphology, partially covered by younger formations.	Low porphyritic lava (P.I. 5%) with phenocrysts of px (3-7 mm).		Typically, it can be seen along bumps, on the HI-400 road.
La Trinidad formation	LTR	Ancient lava flow field partially covered by younger formations.	High porphyritic lava (P.I. 38%) with abundant phenocrysts of ol (1-3 mm), px (1-		Typically, it can be seen along bumps, on the HI-400 road.

			7 mm).		
Dos Golpes formation	DG	Up to 3 m thick lava flow. The lava flow field is characterized by aa morphology, partially covered by younger formations.	Low porphyritic lava (P.I. 5%) with phenocrysts of elongate px (2-4 mm, locally up to 15 mm).		Typically, it can be seen along bumps, on the HI-400 road.
Los Letreros North formation	LLT-N	Up to 18 m thick lava flow. The lava flow field is characterized by aa morphology, partially covered by younger formations.	Low porphyritic lava with phenocrysts of px and ol. Ol and px xenocrysts, up to 4 cm, are also present.		Typically, it can be seen along bumps and over an old scoria cone along HI-400 road.
Cones of uncertain stratigraphic position	CC				Scoria and spatter cones without stratigraphic relationships with other formations. The lower boundary cannot be constrained, and radiometric data are not available.

Table 1. The main features of the identified formations are listed in stratigraphic order and from west to east. Members are preferably listed and described subsequently from the youngest (top) to the oldest (bottom). Background colours correspond to identified stages (light brown: Roque del Julian stage; light blue: Morro del Paso stage; light green: El Jaral stage; light red: La Frontera stage). Uncertain Age Cones cannot be attributed to any stage are labelled gray. Ol= olivine; Px = Pyroxene, Plg = Plagioclase; P.I. = Porphyritic Index / Tabla 1. Las características principales de las formaciones identificadas se enumeran en orden estratigráfico y de oeste a este. Los miembros se enumeran y describen preferentemente desde el más joven (arriba) hasta el más antiguo (abajo). Los colores de fondo corresponden a las etapas identificadas (marrón claro: etapa Roque del Julian; azul claro: etapa Morro del Paso; verde claro: etapa El Jaral; rojo claro: etapa La Frontera). Los conos de edad incierta que no pueden atribuirse a ninguna etapa están etiquetados en gris. Ol= olivino; Px = piroxeno; Plg = plagioclasa; P.I. = Índice Porfírico.