

Note: The relative ages of units in the vertical columns are well established, whereas some of the implied relative ages for units of different columns are not well established. See descriptions of map units for known stratigraphic relations, and table for K/Ar ages. Asterisk denotes unit

DESCRIPTION OF MAP UNITS

ALLUVIUM Includes coarse alluvial fan deposits, stream deposits of gravel, sand and silt, wind blown sand, and deposits of silt and clay in closed depressions.

OLD ALLUVIUM Includes predominantly sand to boulder-rich alluvial fan and fluvial deposits; probably ranges in age from late or middle Pleistocene to Holocene; distinguished from unit al by being partly dissected; oldest(?) part of this unit overlain by unit blr south-southeast of Little Lake.

RHYOLITE OF THE COSO GEOTHERMAL FIELD Thirty-seven separate extrusions of sparsely porphyritic, homogeneous rhyolite (r) and associated pyroclastic deposits (rp); rp includes minor playa deposits in closed depressions; rhyolite forms steep-sided, 40 to 350 meter-high domes, several of which are overlapping and three of which developed flows about 1 km long; flows and domes are covered by blocky pumiceous to perlitic carapaces through which ribs and spines of obsidian protrude locally; rhyolite contains no more than 2 percent and generally less than 1 percent phenocrysts, all less than 1 mm long; some or all of the phases quartz, sanidine, oligoclase, Fe-Ti oxides, biotite, hornblende, clinopyroxene, orthopyroxene and fayalite are present in each dome; pyroclastic deposits of pumice and obsidian together with fragments of Mesozoic basement rocks form explosion rings around some domes and a mantle over the entire area of the dome field; some domes carry scattered basaltic xenoliths and rare fragments of Mesozoic basement rocks; Pleistocene domes and basalt flows overlap in space and time; Pleistocene basalt units bp, bsm, and bcw are overlain by rhyolite pyroclastics from adjacent domes; field relations in the vicinity of Volcano Peak indicate the following succession: (1) eruption of basalt of Rose Valley (brvp) or eruption of a rhyolite dome (no overlapping relations), (2) eruption of basalt of Upper Little Lake Ranch (bur), (3) eruption of a rhyolite dome, (4) eruption of basalt of Volcano Peak (bvp); K/Ar ages of domes range from 0.96 ± 0.19 to 0.041 ± 0.041 0.021 m.y. (Lanphere and others, 1975).

BASALT OF VOLCANO PEAK Flows (bvp), cinder-bomb cone (bvpp), and adjacent cinder mantle (bvpp) of porphyritic, vesicular basalt; contains 1 percent of 0.2-1 mm olivine, 3 percent 0.2-1 mm yellowish clinopyroxene with rare opaque inclusions, 15 percent 0.5-4 mm plagioclase, and rare 0.6-3 mm embayed quartz in a granular groundmass of olivine, clinopyroxene, opaques, and plagioclase; olivine, clinopyroxene, roxene, and plagicclase phenocrysts commonly intergrown in clots; overlies units bsvp, bcr, r, bur, bwp and brv; aa flow surface and flow channels are well preserved; flows followed stream valleys; K/Ar age 0.038 ± 0.032 m.y. (Lanphere and others, 1975); probably the youngest volcanic unit in the map area; estimated average thickness of flows 2-6 meters.

BASALT SOUTH OF VOLCANO PEAK Flow (bsvp), cinder-bomb cone (bsvpp) and adjacent cinder mantle (bsvpp) of porphyritic, vesicular basalt; flow was fed from vent marked by the cone 0.8 km south of Volcano Peak; contains 3 percent of 0.1-0.6 mm olivine, 2 percent of 0.1-1 mm clinopyroxene commonly in clots and containing rare opaque inclusions, and 15 percent of 0.2-4 mm plagfoclase with olivine inclusions in an aphanitic groundmass; overlies unit bcr; and is overlain by unit bvp; aa flow surface and flow channels well preserved; estimated thickness of flow 2-6 meters.

BASALT OF CINDER RIDGE Seven cinder-bomb cones (bcrp) adjacent cinder mantle (bcrp), and at least two flows (bcr) of porphyritic, vesicular basalt; youngest flow contains about 2 percent of 0.2 mm and smaller olivine, 2 percent of 0.1-0.8 mm pale yellow clinopyroxene, 10 percent of 0.1-1 mm plagioclase, and 3 percent of 1-10 mm plagioclase in an aphanitic groundmass; youngest flow contains relatively more plagioclase and less olivine phenocrysts than underlying flow; overlies units bwa, swh, blr, and ba, and is overlain by units bvp, and bsvp; much or all of youngest flow appears to have issued from most southerly of five aligned cinder cones; aa flow surface and flow channels well pre-

served; magnetic polarity normal; total thickness about 3-8 meters. BASALT SOUTHWEST OF VOLCANO PEAK Partly buried basalt cinder cone; overlain by unit bvp.

BASALT WEST OF AIRPORT LAKE Flow (bwa), cinder cone (bwap), and adjacent cinder mantle (bwap) of porphyritic, vesicular basalt; contains 1 percent of 0.1-0.2 mm opaque mineral (titanomagnetite?), 2 percent of 0.1-0.8 mm olivine, and 7 percent of 0.3-2 mm plagioclase in a groundmass of felted plagioclase laths, granular olivine, pyroxene, and opaque mineral; overlies units swh, ba, and is overlain by unit bcr; strand lines eroded into this unit along southwest edge of Airport Lake; aa surface and flow channels preserved; magnetic polarity normal; 2 to 4 meters thick.

BASALT OF MERCURY PROSPECT Flow (bp) and cinder cone (bpp) of vesicular basalt; contains 1 percent 0.1-0.3 mm olivine, 0.5 percent 0.1-0.6 mm opaques, and 8 percent 0.2-1.5 mm plagioclase in a groundmass of granular olivine, opaques, pyroxene, and plagioclase laths; xenoliths of Mesozoic granitic basement rocks common; overlies units bcw, c, omf, od, and oal; flow channel and aa surface preserved locally; flow followed a stream channel into Airport Lake; about 2 to 7 meters thick; magnetic pola-

rity normal; K/Ar age 0.234 + 0.022 m.y.

BASALT OF RED HILL Flow (brh) and cinder-bomb cone (brhp) and adjacent cinder blanket (brhp) of porphyritic, vesicular basalt; contains I percent 0.1-1 mm olivine with opaque inclusions, less than I percent yellowish clinopyroxene, 2 percent 0.1-1 mm plagioclase, and 5 percent 1-3 mm plagioclase in groundmass of felted plagioclase laths granular olivine, opaques, and pyroxene; xenoliths of Mesozoic granitic basement rocks common; overlies units bur and blr; flow followed Pleistocene Owens River channel at least 16 km downstream into Indian Wells Valley; aa to pahoehoe flow surface well preserved locally; magnetic polarity normal; about 4 to 10 meters thick.

BASALT OF UPPER LITTLE LAKE RANCH Flow (bur) and cinder cone (burp) of vesicular basalt; contains 1 percent 0.2-1 mm olivine and 2 percent 0.3-1 mm plagioclase in a coarse grained, sub-ophitic groundmass of olivine, opaques, lavender clinopyroxene, and plagioclase laths; overlies units blr and brv, and is overlain by units byp and brh; flowed down Pleistocene Owens River channel for at least 15 km; pahoehoe to aa flow surface preserved locally; magnetic polarity normal; thickness ranges from about 5 meters to a maximum exposed thickness of 25 meters where lava ponded in Owens River channel near Little Lake; overlain by rhyolite pyroclastics of unit r with K/Ar age of 0.077 + 0.008 m.y. (see Lanphere and others, 1975, sample no. 1); K/Ar age 0.140 \pm 0.089.

BASALT OF LOWER LITTLE LAKE RANCH Cinder-bomb cone (blrp) and at least two flows (blr), of porphyritic vesicular basalt; contains 1 percent 0.1-0.4 mm opaques (titanomagnetite?), less than 1 percent olivine, 2 percent 0.2-1 mm pale yellow clinopyroxene with opaque inclusions up to 0.1 mm, and 7 percent 0.2-3 mm plagioclase with common sieved cores in groundmass of granular olivine, opaques, clinopyroxene, and felted plagioclase laths; xenoliths of Mesozoic basement rocks present; overlain by units bcr, brh, and bur, and overlies unit oal; total thickness 3-10 meters magnetic polarity normal; K/Ar age of upper flow 0.399 \pm 0.045 m.y. and K/Ar age of lower flow 0.486 \pm 0.108 m.y.

LANDSLIDE Landslide debris of Sierra Nevada escarpment near Little Lake; appears to be overlain by

BASALT OF COSO WASH At least three flows of porphyritic, vesicular basalt; contains 3 percent 0.1-1 bcw mm olivine with opaque inclusions, 1 percent 1-4 mm olivine, less than 1 percent 0.1-0.2 mm opaques, 2 percent 0.2-0.5 mm brownish clinopyroxene, rare clinopyroxene up to 2 mm, and 20 percent 0.3-2 mm plagioclase with opaque inclusions in a fine-grained groundmass of granular olivine, opaques, pyro-xene, and plagioclase; smaller phenocrysts commonly intergrown in clots; xenoliths of Mesozoic base-ment rocks common; overlain by unit bp; flow followed stream channel; vent area is probably buried by rhyolite dome at the upstream end of the flow; magnetic polarity normal; aa surface preserved locally;

BASALT OF AIRPORT LAKE Porphyritic vesicular basalt flows; contain about 3 percent 0.05-6 mm olivine, 1 percent 0.2-1.5 mm clinopyroxene, 5 percent 0.1-1 mm plagioclase, 5 percent 0.5-6 mm plagioclase with sieved cores, and less than 1 percent 0.5-3 mm quartz in a groundmass of granular olivine, opaques, pyroxene, and plagioclase laths; phenocrysts commonly in clots; overlies unit swh and is overlain by units bcr and bwa; columnar jointing present locally; thickness about 3 to 7 meters.

BASALT OF SUGARLOAF MOUNTAIN Flow (bsm) and associated cinder deposits (bsmp) of porphyritic, vesicular basalt; contains about 10 percent 0.1-4 mm olivine, less than 1 percent 0.4-6 mm clinopyroxene, 20 percent 0.2-1 mm plagioclase, and 3 percent 1-10 mm plagioclase in a fine-grained groundmass of plagioclase laths and granular olivine, clinopyroxene, and opaques; flow followed stream channel; about 3-5 meters thick; K/Ar age 1.08 ± 0.06 m.y.

BASALT OF NAMELESS HILL Two flows (bn) and two cinder-bomb deposits (bnp) of microporphyritic, vesicular basalt. Contains 2 percent 0.3 mm and smaller olivine and 7 percent 0.2-2 mm plagioclase in a groundmass of granular olivine, opaques, pyroxene, and plagioclase; flows followed stream valleys; xenoliths of Mesozoic basement rocks common; estimated thickness 3-6 meters, K/Ar age 1.07

SEDIMENTARY ROCKS OF THE WHITE HILLS Includes interbedded conglomerate, sandstone, siltstone, silty claystone, and tufa; apparently grades laterally into cobble to boulder fanglomerate near the southwest corner of Airport Lake; overlain by units ba, bwa, blr, and bcr; some beds contain reworked, rounded pumice lapilli of unit p, indicating that unit swh is younger than the Coso Formation; contrasting mammalian fauna indicate this same age relation (Roland von Huene, oral commun., 1976).

BASALT OF ROSE VALLEY Four cinder-bomb cones (brvp) and three flows (brv) of porphyritic, vesicular basalt; contains 2-8 percent 0.1-2 mm olivine, 2-6 percent 0.2-2 mm yellowish clinpyroxene, and 8-15 percent 0.2-4 mm plagioclase in a fine-grained groundmass of plagioclase and granular olivine, opaques, and pyroxenes; olivine and/or clinopyroxene phenocrysts commonly contain opaque inclusions up to 0.2 mm; phenocrysts commonly broken or rounded and embayed; glomero-porphyritic clots, xenoliths of Mesozoic basement rocks, and rounded quartz grains up to 0.5 mm present locally; overlain by units bur and bvp; maximum exposed thickness of flows 2-4 meters; K/Ar age 2.06 ± 0.34 m.y.

RHYOLITE SOUTH OF HAIWEE SPRING Dome or plug of flow banded, porphyritic rhyolite; contains about 1 percent 0.5-2 mm quartz, 1 percent 0.3-1 mm plagioclase, rare 1 mm sanidine, and rare 0.2-0.5 mm brown biotite in a matrix of gray devitrified rock or green hydrated, perlitic glass; bounded by normal fault on rhs east: exposed thickness about 50 meters.

BASALT OF UPPER CENTENNIAL FLAT Two cinder deposits (bcfp) and several basalt flows (bcf) averaging a few meters thick; contains about 1 percent or less of <1 mm olivine; overlies Coso Formation, unit c, just north of map area (see Hall and MacKevett, 1962). bcfp >bcf

BASALT OF SILVER MOUNTAIN Two cinder deposits (blmp) and several vesicular, porphyritic lava flows (blm) averaging a few meters thick; contains 0.5-1.0 percent 0.5-2.0 mm plagioclase, with rare crystals of each as large as 5 mm in an intergranular groundmass of clinopyroxene, olivine, and plagioclase; contemporaneous with unit acf; maximum thickness about

ANDESITE OF CACTUS FLAT Interlayered cinders and flows (acfp) and flows (acf) averaging 10 or more meters thick of porphyritic andesite; contains about 5 percent 1-4 mm plagioclase, 1 percent 0.5-2 mm pleochroic orthopyroxene, 1 percent 0.3-0.5 mm clinopyroxene, and less than 1 percent 0.3-0.5 acfp acf mm olivine, in an intergranular groundmass of pyroxene and plagioclase; erupted from lava-cinder shield at north end of Cactus Flat; overlies Coso Formation (unit c) and is contemporaneous with

BASALT OF RENEGADE CANYON Five cinder cones ($brcp_{1-5}$), three eroded cinder deposits ($brcp_{6-8}$), and associated lava flows (brc, brc1-4,8) averaging a few meters thick; flows near some cones can be traced to source vents on bases of morphology and phenocryst assemblages; phenocrysts include 3-10 percent 0.5-3.0 mm plagioclase, 1-5 percent 0.1-2.0 mm olivine and 1-4 percent 0.2-1.5 mm clinopyroxene; subunits brc₁, brc₃, and locally brc contain 1 percent 1-3 mm rounded grains of quartz; part of subunit brc₈ contains only plagioclase and olivine phenocrysts; maximum exposed thickness about 170 meters; overlies units od, omf, tsv, and p.

ANDESITE NORTHWEST OF PETROGLYPH CANYON Flow (anp) and associated pyroclastic deposit (anpp) of porphyritic basaltic andesite; near vent area contains about 2 percent 0.1-0.6 mm olivine, 2 percent 0.3-0.8 mm clinopyroxene, 10 percent 0.2-4.0 mm plagioclase, and rare 1-1.5 mm rounded quartz in a finegrained matrix of clinopyroxene, opaques, and plagioclase; thickness ranges from about 5-30 meters; phenocryst content and thickness decrease away from vent area; overlies units c, p, bpc, and omf; anpp anp

DACITE OF HAIWEE RIDGE Flows of porphyritic dacite; contains rare 0.02 mm zircon, rare 0.1 mm apatite, rare 0.1-0.7 mm orthopyroxene with amphibole rims on larger crystals, rare 0.1 mm clinopyroxene(?), 1 percent 1-2 mm quartz, 1 percent 0.05-0.2 mm opaques, 3 percent 0.2-1.5 mm brown biotite with opaque and feldspar inclusions, 3 percent 0.2-1.7 mm greenish brown amphibole with opaque, feldspar, and biotite inclusions, and 15 percent 0.1-6.0 mm plagioclase with inclusions of most other phenocryst phases in a glassy groundmass now largely composed of feldspar and other microlites; overlies unit c; highly flow banded; columnar jointing developed where pended; average thickness about 25 meteors; pended to at columnar jointing developed where ponded: average thickness about 25 meters; ponded to a least 200 meters south of Haiwee Reservoir; Evernden and others (1964) report K/Ar age of 2.1 m.y.

YOUNGER DACITE EAST OF COSO VALLEY Small cinder deposit (dyp) and thick flow (dy) of flow banded dacite; contains less than 1 percent 1.2-2 mm quartz, 10 percent 0.6-6 mm plagioclase, less than 1 percent 0.1-0.6 mm brown amphibole, now mostly replaced by iron oxide, less than 1 percent 0.3-1.5 mm orthopyroxene, rare 0.5-0.7 mm clinopyroxene, and rare 0.3 mm biotite in a groundmass of opaque, pyroxene, and feldspar microlites in devitrified glass; overlies units bpc, omf, c, and do; thickness 10 to at least 60 meters.

OLDER DACITE EAST OF COSO VALLEY Cinder deposit (dop) and thick flow (do) of platy, flow banded dacite; contains 1 percent 0.6-1 mm quartz, 3 percent 0.6-3 mm plagioclase, less than 1 percent 0.3-1 mm brown amphibole, now mostly replaced by iron oxide, less than 1 percent 0.3-1.2 mm ragged brown biotite, less than 1 percent 0.2-0.8 mm clinpyroxene, commonly in clots, and 1 percent 0.2-5.0 mm orthopyroxene commonly with cores of up to 1 mm forsteritic olivine in a groundmass of opaques, pyroxene, and feldspar microlites in devitrified glass; overlies units bcp and c and is overlain by unit dy; magnetic polarity normal; thickness 5 to at least 50 meters.

TUFF SOUTHWEST OF VOLCANO BUTTE Basaltic to andesitic pyroclastic deposit; well stratified vesicutsv lar ash and lapilli, with beds from a few to several centimeters thick, locally disturbed by volcanic bomb sags 0.3-1.0 meter in diameter; maximum exposed thickness about 6 meters; overlain by unit brc.

COSO FORMATION Includes fanglomerate of Mesozoic basement rocks, arkosic sandstone, tuffaceous sandstone and siltstone, tuffaceous lacustrine beds, and silicic tuff; fanglomerate, coarse-grained arkose, and tuff are predominant on the high slopes of Haiwee Ridge and interfinger with finer grained rocks and lacustrine beds to the north and west; north and east of Upper Cactus Flat and Coso Hot Springs, fanglomerate and interlayered hornblende-biotite pumice (p) predominate; overlies units b, od, bcp, bpc, and omf and is overlain by units acf, dh, bcf, do, dy, anp, and brc; K/Ar age of rhyolitic tuff in c is 3.09 ± 0.09 m.y.; K/Ar ages of p are 3.03 ± 0.20 m.y., 2.46 ± 0.98 and 2.95 ± 0.98 0.13 m.y.; Evernden and others (1964) report a K/Ar age of 2.3 m.y. for silicic tuff in c, inconsis-

OTHER MAFIC LAVAS Flows from 2 to 20 meters thick (omf) and eroded cones (omfp) of porphyritic vesicular basalt to basaltic andesite; phenocrysts include up to 7 percent 0.1-2 mm olivine, 5 percent 0.2-1 mm greenish sector-zoned clinopyroxene, and 25 percent 0.2-3 mm oscillatory-zoned plagicclase in a fine grained groundmass of plagioclase laths, granular olivine, an opaque mineral, and clinopyroxene; glomeroporphyritic texture common; some flows contain 1 mm amphibole almost entirely replaced by opaque oxides; others contain plagioclase as large as 5 mm with sieved cores and clear rims, rare alkali feldspar as large as 3 mm, and rounded grains of quartz as large as 5 mm armored by a rind of clear, brown glass in turn rimmed with clinopyroxene; total phenocryst content generally less than 20 percent; some cinder deposits are in part dacitic; basalt dikes cut cinder cones locally: some flows west of Silver Peak superficially similar to those of unit bpc; overlies unit b, interfingers with units bpc and od, and is overlain by units bcp, c, p, brc, brc4, bp, and oal; includes both normal and reversed magnetic polarities; K/Ar ages range from 3.10 ± 0.22 m.y. to 3.66 ± 0.08 m.y.

OTHER DACITE Cinder deposits (odp) and flows and shallow intrusive bodies (od) predominantly of porphyritic biotite and/or hornblende dacite; includes minor porphyritic olivine or orthopyroxene andesitic flows near Volcano Butte; odp commonly includes mafic cinders admixed with dacitic cinders; dacite flows contain up to 30 percent 0.1-8 mm oscillatory-zoned plagicalse and various combinations of as much as 2 percent 0.8-4 mm rounded and embayed quartz, 5 percent 0.2-1.5 mm orthopyroxene, 3 percent 0.2-0.8 mm clinopyroxene, 15 percent 0.1-2.5 mm generally oxidized brown amphibole, 7 percent 0.1-1.5 mm brown biotite, 1 percent 0.2-0.5 mm opaque mineral, accessory 0.1-0.8 mm sphene and 0.1-0.2 mm zircon in a very fine-grained to glassy groundmass; as much as 1 percent 0.1-0.8 mm olivine present locally; rounded inclusions of andesite, basaltic andesite, and basalt a few millimeters to several meters in size account for as much as 30 percent of many outcrops; in such mixed rocks, coexistence of dacitic and more mafic liquids is indicated by interfingering and partial mixing on scale of a few millimeters; thickness ranges from roughly 20 meters to at least 300 meters; interfingers with units omf and bpc; overlain by units c, p, brc, tsv, bp, and oal; K/Ar ages 3.42 ± 0.10 and 2.20

BASALT OF COSO PEAK Cinder deposits (bcpp) and a few flows (bcp) of porphyritic basalt; contains 0-5 percent 0.2-3 mm olivine with spinel inclusions and 1-3 percent 0.2-2 mm greenish sector-zoned clinopyroxene in a groundmass of granular opaques, olivine, clinopyroxene, and plagioclase laths; phenocrysts commonly occur in clots; locally contains granitic xenoliths and quartz grains; at least 10 meters thick; overlies units b and omf; overlain by unit p; magnetic polarity reversed; K/Ar age 3.60

BASALT OF UPPER PETROGLYPH CANYON Cinder deposits (bpcp) and thin flows (bpc) of vesicular basalt; contains 3-5 percent 0.2-3 mm olivine with opaque inclusions and 5-10 percent 0.5-6mm oscillatory-zoned plagioclase in a coarse grained ophitic groundmass of bladed opaques, granular olivine, poikilitic brownish clinopyroxene, and plagioclase laths; typically displays vesicle cylinders and sheets, glo-meroporphyritic clots, platy jointing near tops of flows, columnar jointing in flow interiors, and well-developed diktytaxitic texture; thickness 3 to at least 60 meters; overlies unit b, interfingers with units omf and od, and is overlain by units oal, c, p, anp, do, and dy; K/Ar ages 2.98 ± 0.12 and

UNDIFFERENTIATED BASEMENT ROCKS (Mesozoic) Principally granitic intrusive rocks of Mesozoic age; compositions range from granite to quartz diorite to quartz-free diorite or gabbro; textures range from medium-to coarse-grained to porphyritic with K-feldspar crystals up to 1.5 cm; mafic inclusions common, especially in south part of map area; metamorphic pendants as much as 0.5 km long present in east and northeast part of map area; generally northwest trending, Mesozoic(?) dikes of silicic and intermediate to mafic composition abundant locally.

EXPLANATION OF SYMBOLS

Contact, dashed where uncertain and dotted where concealed.

Fault, dashed where uncertain and dotted where concealed or inferred; bar and ball on down-thrown side. Dip of fault plane shown where known.

Topographic crest of ring of pyroclastic debris that partly surrounds some rhyolite domes.

Vents of mafic to intermediate lavas, represented by well preserved cinder cones, or eroded pyroclastic deposits. Dotted where concealed.

Strike and dip of stratified rocks, including mafic lava flows in east part of map area.

Attitude of steep flow foliation in unit dh.

Steeply dipping dike, in units omf and b only.

K/Ar age in millions of years, with arrow to sample locality.

Direction of downslope ground slippage in landslide.

Note: In addition to being broken by the mapped faults, the Mesozoic basement rocks (b) that underlie that part of the field of rhyolite domes (r) south of Cactus Peak are shattered to pieces generally less than one meter in diameter and are locally hydrothermally altered, especially immediately west of Coso Basin and south and west of Coso Hot Springs.

ANALYTICAL DATA AND CALCULATED POTASSIUM-ARGON AGES FOR VOLCANIC ROCKS OF THE COSO VOLCANIC FIELD BY G. BRENT DALRYMPLE

Location						Argon		
	Map unit	Sample number	Material	K ₂ 0 [†] wt. %	Weight (gms)	40 _{Arrad} (10 ⁻¹² mo1/gm)	100 ⁴⁰ Ar _{rad}	Calculated Age* (10 ⁶ years)
NE1/4sec6 T23S,R38E	bur	75G301	basalt	1.356 <u>+</u> 0.004(4)	18.325 20.134	0.222 0.312	1.0	0.140 <u>+</u> 0.089
SW1/4sec35 T22S,R39E	bp	75G314	basalt	1.525 <u>+</u> 0.007(4)	15.169 25.247	0.529 0.505	7.7 7.6	0.234 + 0.022
NE1/4sec32 (upper T23S,R38E flow)	blr	75G305	basalt	1.789 <u>+</u> 0.010(4)	19.561	1.029	8.6	0.399 <u>+</u> 0.045
NE1/4sec32 (lower T23S,R38E flow)	blr	75G306	basalt	1.610 <u>+</u> 0.003(4)	18.995	1.126	5,0	0.486 <u>+</u> 0.108
NW1/4sec26 T23S,R38E	bn	75G308	basalt	1.312 + 0.004(4)	20.230 21.858	1.638 2.118	3.8 9.9	1.07 <u>+</u> 0.12
SE1/4sec14 T22S,R38E	bsm	75G309	basalt	1.530 + 0.009(4)	29.248 29.693	2.317 2.395	11.4 21.2	1.08 + 0.06
SE1/4sec21 T22S,R38E	brv	75G304	basalt	1.738 + 0.005(4)	14.052 14.912	6.29	4.1 5.6	2.06 <u>+</u> 0.34
NE1/4sec13 T20S,R37E	С	9-85-2	sanidine	12.315(2)	3.835	54.88	66.2	3.09 + 0.09
NE1/4sec23 T21S,R38E	р	9-8-11	biotite plagioclase	6.475(2) 0.458(2)	1.151 5.863	22.975 2.004	2.4 16.0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
NW1/4sec11 T22S,R39E	р	13-113-6	plagioclase	0.518(2)	6.108	2.203	24.4	2.95 <u>+</u> 0.13
SW1/4sec15 T22S,R39E	od	75G315	biotite plagioclase	8.24(2) 0.696(2)	1.813 7.848	40.58 2.210	43.1	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
NE1/4sec28 T20S,R39E	bcp	8-193-2	basalt	1.786 + 0.004(4)	21.163	9.218 9.312	28.0 47.1	3.60 <u>+</u> 0.08
NW1/4sec13 T22S,R39E	omf	13-113-15	basalt	1.042 + 0.005(4)	16.000 16.000	4.686 4.569	6.7 7.9	3.10 + 0.22
SW1/4sec3 T21S,R39E	omf	8-195-2	basalt	1.713 + 0.007(4)	20.110	8.700 8.794	25.5 42.3	3.54 + 0.08
NE1/4sec15 T22S,R39E	omf	8-199-6	basalt	0.857 + 0.004(4)	20.458	4.188 5.202	15.8 8.2	3.67 <u>+</u> 0.16
NE1/4sec5 T22S,R40E	bpc	13-113-17	basalt	0.726 + 0.002(4)	19.530 17.627	3.076 3.169	16.3 16.4	2.98 <u>+</u> 0.12
SE1/4sec12 T21S,R39E	bpc	13-111-1	basalt	0.708 + 0.004(4)	18.711	3.572	20.7	3.50 <u>+</u> 0.19
SE1/4sec10 T21S,R39E	omf	8-196-2	basalt	1.318 + 0.012(4)	19.991 19.688	6.941 6.925	37.1 33.7	3.66 <u>+</u> 0.08

+ Errors are calculated standard deviations. Number of analyses in parentheses.

* $\lambda_{\rm g} = 4.963 \times 10^{-10} \, \rm yr^{-1}$, $\lambda_{\rm g} = 0.572 \times 10^{-10} \, \rm yr^{-1}$, $\lambda_{\rm g}' = 8.78 \times 10^{-13} \, \rm yr^{-1}$, 40 K/K = 1.167 × 10⁻⁴ mol/mol. Errors are estimated standard deviation of precision.

†† Potassium measured by lithium metaborate fusion and flame photometry. Argon measured by isotope dilution mass spectrometry.

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EXPLANATION TO ACCOMPANY PRELIMINARY GEOLOGIC MAP OF THE COSO VOLCANIC FIELD AND ADJACENT AREAS, INYO COUNTY, CALIFORNIA

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey standards

U.S. Geological Survey and nomenclature.