

**PETROLOGY OF LATE MIOCENE TO EARLY PLEISTOCENE VOLCANIC ROCKS IN TAKIKAWA DISTRICT, CENTRAL HOKKAIDO: TEMPORAL AND SPATIAL VARIATION OF MAGMA AT KURIL-NE JAPAN ARC-ARC JUNCTION**

**Enoeda<sup>1</sup>, R., Nakagawa<sup>1</sup>, M.**

<sup>1</sup> Graduate school of science Hokkaido Univ., Sapporo, Hokkaido, Japan

Vcnkney c"xqrecple"hgfr "ku"qecvgr "cv"vj g"lwpevkp"qh"vj g"Mtaki"cpf "vj g"pqtvj gcuvgtP"G+Lcr cp"cte0K" eqpuku"qh"Vcnkney c"O qpqi gpgvle"Xqrecpq"i tqwr "VO X+"cpf "uqo g"uj kgrf "xqrecpqgu"Uj qnēpdguw"xqrecpq" i tqwr "Uj X+"cpf "Kwo wngr r w"xqrecpq"KX+0Vj gug"xqrecpqgu"uctv'ku'cevkkf "ulpeg"rcvg"O kqegpg"cv"VO X"lp" y guvgtp"r ctv"qh"Vcnkney c"f kntlev"V wtkpi "rcvg"Rikqegpg"vq" gctn "Rrgkqegpg"VO X"cevkkf "o ki tcvgrf"vq" gcuvgtP"r ctv"cpf "Uj X"lp"y guvgtp"r ctv'cpf "KX"lp"gcuvgtP"r ctv'gtw vgrf "ci k'gv'crf"3; : 9=Uci cy c"gv'crf"3; : : = P cnei cy c"gv'crf"3; : 5+0Xqrecpqgu"lp"Vcnkney c"f kntlev"j cxg"egcugf "vj gk"cevkkf "ulpeg"30"O c"=P cnei cy c" gv'crf"3; : 5+0O qpqi gpgvle"xqrecpqgu"cv"vj ku"f kntlev"eqwrf "j cxg"dggr"hgto gf "wpf gt"gzvvpukpcn'utguu"hgfr " ceeqo r cplgrf " y kj " urtgcf lpi " qh" Vcnkney c" utwewtcn' dculp "P cnei cy c" gv' crf"3; : 5+0 Vj gthgtg. " y g" i gqej go lecn'hcwgtgu"qh"Vcnkney c"xqrecple"tqemu"ctg"gzr gevgr "vq"tghgevg"go r qtcn'cpf "ur cvkn'xctkcvkp"qh" o ci o cvkuo "ctqwpf "vj g"lwpevkp"qh"vj g"Mtaki"cpf "vj g"PG+Lcr cp"cteu"f wtkpi "rcvg"O kqegpg"vq" gctn "Rrgkqegpg" Vj gug"hcwgtgu"ecp"r tqxkf g"wu"vj g"lo r qtvcv'eqpuctkpv'ht "wpf gtucpf lpi "vj g"vgevpkcu"cv"vj g"cte/cte"lwpevkp" Vq"tgxgrf "vj g" o ci o cvk "r tqeguu" cv' cte/cte"lwpevkp. " y g" j cxg" dggr" ecttkgrf "qw" vj g" r gvtqmi lecn' cpf " i gqej go lecn'uwf { "cdqww"Vcnkney c"xqrecple"hgfr 0Vj gtg"ctg"ugxgtcn' r tgxkqu"uwf lgu"cdqww"xqrecple"tqemu"lp" vj ku"f kntlev"ci k'gv'crf"3; : 9=P cnei cy c"gv'crf"3; : 5+0Cmj qwi j "ugxgtcn'o clqt"cpf "tcegr"grgo gpw"cdqww" VO X"cpf "Uj X"ctg"tgr qtgrf. "vj g"eqo r tgj gpukxg"r gvtqmi lecn'cpf "i gqej go lecn'hcwgtgu"qh"vj g"xqrecple"tqemu" Itqo "Vcnkney c"xqrecple"hgfr "j cxg"pqv'dggr"uwkn'tgxgrf 0Y g"tgr qt v'vj g"r gvtqi tcr j lecn'hcwgtgu"cpf "o clqt" cpf "tcegr"grgo gpw"qh'y j qrg/tqemlej go knt { "qh"vj gug"xqrecple"tqemu"

VO X"ku"eqo r qugrf "qh"dcucnle"nxc"eqpg. "f { ng"cpf "ukn0Uj X"eqpuku"qh"uqo g"uj kgrf "xqrecpqgu"y kj " dcucnle/cpf gukle"nxc"mry 0KX"cuq"eqpuku"qh"uj kgrf "xqrecpqgu"qh"cpf gukle"nxc"mry 0Xqrecple"tqemu"lp" Vcnkney c"f kntlev"ctg"dcucn. "cpf gukg"cpf "f cekg"qh"UkQ4"6; 087y v0 0Cm'cpf gukgu"ctg"ecre/cmerkp"ugt lgu0 Cpf gukgu"qh"Uj X"cpf "KX"ctg"o gf kwo /M'cpf "j ki j /M'ugt lgu0Vj gtg"y kf gn "gzkv'dcucnu"lp"VO X"cpf "Uj X0 Vj g"j cxg"y kf g"eqo r quklqpcn'xctkcvkp"ltqo "cmerkp"vq"vj qrgkgo0K"ur kf gt "f kci tco "qh"tcegr"grgo gpv'xnvgru" pqto crk gf "d { "r tko kxg"o cpvr. "dcucnu"lp"Vcnkney c"xqrecple"hgfr "uj qy "xctkqu"Pd.Vc"pgi cvkxg"cpqo cnf " cpf "Rd"r quklxg"cpqo cnf. "uq"vj g { "eqwrf "dg"xctkquw" "chgevgf "d { "uwdf wvckp"eqo r qpgrv0

Hqewkpi "qp"lpeqo r cvkdr"grgo gpw"qh"vj g"dcucn. "Uj X"j cu"tgrvkg"pcttqy "tapi g"uj qy lpi "tgrvkg" j ki j gt "Td1 t"cpf "Dc1 t"tcvku0K"eqpucv. "VO X"uj qy u"tgrvkg"y kf g"tapi g"y kj "mry gt "Td1 t"cpf "Dc1 t" tcvku0 K" P d1 t"tcvku. "VO X"dcucn" cpf "Uj X"dcucn' dculecmf "uj qy "uco g" xnvgr0 Vj g" xctkqu" tcvku" qh" lpeqo r cvkdr"grgo gpw"qh"r tko kxg"dcucnu"lp"vj ku"f kntlev"ecppqvdg"r tqf wegrf "d { "et { ucnk cvkp"qh" c"ukpi rg" r tko ct { "o ci o c. "dw"dg" f gtxgrf "ltqo "o wnr rg"xctkqu"r tko ct { "o ci o cuEqpukf gtlpi "vj g" f khtgpeg"lp" tcvku" qh"lpeqo r cvkdr"grgo gpw"r tko kxg"dcucnu. "Uj X"cpf "o quv"qh"VO X"j cxg"vj g"hcwgtg"qh"ku"cpf "cte"dcucn"mry / Pd1 t"cpf "j ki j /Dc1 t"tcvku0J qy gxgt. "qpg"xqrecpq"qh'y guvgtp"VO X"O ctw co c<O T+"gzj kdku"vj g"hcwgtg" qh'dcen'cte"dcup"dcucn"y kj "j ki j /Pd1 t"cpf "mry /Dc1 t"tcvku0"

Itqo "gpvtg"i gqej go lecn'hcwgtg"qh"tqemu"lp"Vcnkney c"xqrecple"hgfr. "vj gtg"gzkv'uqo g"r tko ct { "o ci o c" y kj "f khtgprv"eqo r quklqpcn"lp"vj ku"ctgc" f wtkpi "rcvg"O kqegpg"vq" gctn { "Rrgkqegpg"0Vj ku"hcwgtg"o ki j v'tghgevg" vj g" f khtgpeg"lp" f gi tgg"qh"r ctv'cn' o gnkpi "cv'r tqf wtkpi "r tko ct { "o ci o c"qt"vj g"eqo r quklqpcn'xctkcvkp"lp" o cpvr"uqwtg. "eqttgur qpf lpi "vq"vj g"o cpvr"r nwo g"o qf gn'wpf gt"vj ku"f kntlev. "qh"y j lej "Uj X"cu" c"egpvg. " r tqr qugrf "d { "P cnei cy c"gv'crf"3; : 5+0Vq"gzco lpg"vj ku"r quklkxk. "y g"ctg"i qkpi "vq"ectt { "qw"vj g"cf f kklqpcn' i gqej go lecn'uwf { "wukpi "tctg"gtvj "grgo gpw"cpf "kuqvr le"eqo r quklqpu0

Tghgtgpegu"

[ ci k"MO"Uj kdcv. "MO'cpf "Mcpkcy c. "U03; : 90M/Ct"ci gu"qh"xqrecple"tqemu"qh"vj g"Uj qnēpdguw"cngr"ctgc. " y guvgtp"J qmnekf q. "Lcr cp0Kazan, "xqr54\*6+ "r 5880\*lp" Lcr cpug+0

Uci cy c. "C0"O cuwk"MO'cpf "[ co ci vej k"U03; : : 0M/Ct"ci g"cpf "r crgqo ci pgkuo "qh"vj g"Qvqg"[ co c"nxc. " Kwo wngr r w"xqrecpq. "J qmnekf q0Bull. Geol. Surv. Japan. "xqr05; "8+ "r 0645/64: 0\*lp" Lcr cpug"y kj "Gpi rkuj " cduwcev0

P cnei cy c. "O 0" I qvq. "[ 0"Ctck"MO"Y cf c. "MO'cpf "Kc { c. "V03; : 50M/Ct"ci gu"cpf "o clqt"grgo gpv'ej go lecn' eqo r quklqpu"qh" Ncv"O kqegpg"cpf "Rikqegpg"dcucnu"ltqo "Vcnkney c" f kntlev. "egpvtcn' J qmnekf q< Dcucnle" o qpqi gpgvle"xqrecpq"i tqwr "cv"vj g"lwpevkp"qh"vj g"pqtvj gcuvgtP" Lcr cp"cpf "Mtaki"cteu0Journal of Mineralogy, Petrology and Economic Geology": . "r 5; 2/6230\*lp" Lcr cpug"y kj "Gpi rkuj "cduwcev0