**Additional file 7:**

Protein sequences of CAZYmes identified in *S. oryzae* genome

>SoG\_00010.T1

MSPSRSLSRSSPEQWWNPYRRIAWSKRNQTWDAADLESNQQTSRGRDPKRSHTTYGNEST

REDVTLHDHGVLPPTGRPTDLSTADTMSAEPAEMNGGAGPELRQRKVDEKTNGSAAAPGD

NREDTSSKTSTPPRTGNGKRREKTEKQGLIRHVQPKTPFTVGNQIQRTILNSWINLLLIA

APVGIALNYVSSINRVVVFVVNFIAIIPLAAMLSFATEEIALRTGETLGGLLNATFGNAV

ELIVAIIALIDNKIRIVQTSLIGSILSNLLLVMGCCFFFGGLRREEQFFNETVAQTSASL

LALAVASVIVPTVYDSAIDTPTSDVAKLSRGTSVILLLVYAAYLLFQLKTHSAVFSEESQ

KVPAKPWRRNSLGPGAISSGLAMPGGLMGPAMPNQDEHERLSKLLVNPPGNGDDEDDEEE

PQLHFFVAIATLAISTAIIALCAEYMVDSIDAVTKQGGLSEEFVGLILLPIVGNAAEHAT

AVTVAIKDKMDLAIGVAVGSSMQVALFLIPLLVVIGWGMGKDEMNLSFDMFQIAVLFVAV

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>SoG\_00020.T1

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ASVNFTPHHIVPEALLRHVAESDQVDEATRTRAQRDLGHLEQVLERVRTSQQGLSPQQQT

LFAAEEGKKDTPKDKPYRAVYTMNNSNNEADLPGKMVRAEGEPKVKDKAVNEAFENVGTV

LDFYKDHFKWRSIDNENADVISTVHFGKAYENAFWDPEKLQMVFGDGDEFLNNFTGCIDV

IGHELTHAITEHTSPLDYYGQPGALNEHISDVFGIMIKQKVQNEDAEHADWLIGEDCILP

GVKGTALRSMKAPGTAYNDPRFGKDPQVGNMSQFRTTFEDNGGVHIFSGIPNRAFYLAAK

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ISRGSG

>SoG\_00021.T1

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EIDWEWVGGDVNQVQTNYFSKGDTSTYDRGAYHPVQGAVGTPHTYTIDWTAEKIDWIVNG

AVIRTLKASDAKGGKAFPQTPMEVKLGTWVAGRKDAPQGTVEWAGGYTDFKDAPFNAYYK

SVKIVDYAGGSGPASGPVRQYVYSDKSGDWQSIKVEKGDGPADGENDKPTTTAKSAQPTG

KTIEPEVKSTSERLYTKPKTTIEPSTPVPTTLVTPSKTASDEAQQTTAGSGQSQTSGTTS

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>SoG\_00022.T1

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WIGHDKDSVHGNMVWGEFQPKPWEENDVDIEITHSGVCGTDIHCLRNGWGNVGYPICVGH

EIVGKIVRVGSKVEGGLKIGDRVGVGAQSDACLSRFGPCADCSDGEEQYCSKFVATYAAQ

HFNGAKTMGGYGKYHRCPSHFAIKIPDGVRSQDAAPMLCGGVTLYSPLRYWGCGPGKAVG

IIGVGGLGHFGVLFAKAMGADCVVGISRRENKRAEVMQMGADDYIATSDSDDWAARYDGR

FDLLISTVSSVQVPLGDYLKLLKKDGTLVQVGNPDDGAMTFHPMPLISRRIRFTGSTIGS

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>SoG\_00029.T1

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GPAYIPVIAGGERANCIHYTVNNQSLIKDELVLIDAGGEYGTYITDISRTWPLSGHFTAA

QKDLYNAVLAVQRTSVSLCRASSNMSLEEIHNVTVRGLVDQLKSIGFDSISMSNIGELFP

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>SoG\_00037.T1

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>SoG\_00045.T1

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FGFGLSYTTFEFSSMSAELVDGAKTAELPTGAVISGGQADLWDQLVRVSVLVRNTGNVAG

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LQPGEYTFWVGSSSRSLPLNGTVQIGA

>SoG\_00056.T1

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GISMADLIQWGANVGTVLCPLGPRVRSFVGRKDSSTPAPTGLLPSVNDSVDKLISLFSDK

TFTPGQLVALVGAHSTSQQRFVDPSRAGDPQDSSPGVWDVLFYGETTNPNSPKRVFKFKS

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>SoG\_00063.T1

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YELWRAAKLSESVVKRVVNATVSQSVPGMVSTAVRAVAKLFAGEIIEQARIVQAEWIEAG

EQQSEVPPPPPPPKKDADEEGENPDQQKMRRGPLRPDHLREAWKRYRFSGESCGVGLSQA

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EIDLEIMAQNVHFMRRYMMQGELAQYNATETSPGLSYETTEQLVEWARRVTIPSVYHPIG

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YDEEDRK

>SoG\_00067.T1

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LKQYFIAVEKEDWKFDTLCDLYDTLTITQAVIFCNTRRKVDWLTDKMREANFTVSSMHGD

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>SoG\_00076.T1

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PPPPSNTGSSTGSCPTTLTGAWEFPHLIIPIDSSKPSSAPSSSYFGEVSSTISSIFNFDI

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>SoG\_00078.T1

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GTAFRSAMIIEKDFNFFLSQGVEERHAAAAQGPRRKFLGKARNYLLATALKPEHSWVYWR

DVDIVENPPTLLEDFIAHDKDILVPNDYNSWIESDQGRRLAASLDKDVVIAEGYKEFKTG

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>SoG\_00082.T1

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VLITTNVLARGIDVSSVSMVINYDIPMKGRGDTEPDAETYLHRIGRTGRFGRVGVSISFV

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>SoG\_00091.T1

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FQMTIDSATEFLFGESIDSLGAGDSQPKFARDFNLSQEGLAIRTRLGPLMFLHKDRAFSE

ATVEARRFVDQFVQRAVEYRASHSKEAGASDASEEGYVFLYELSKRTADRKMLTDQLLNV

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RLYPVVPLNSRTAVRDTFLPTGGGPDGKHPTFVPKGVDVVYSVYSMHRLPEVYGPDADEY

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>SoG\_00097.T1

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VNADLFALIFFTVMKRAAFEEVYTEATDRCPFFLPQPDQAAVFSELWVLGSQCEIYFSLL

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TRHQRMESWKKRMTEMGAMSIFCLPAVIDVVLLTFIGRGMFMTAFMDPRHLQAASYALLI

SLLLTAGVTGWVGSTGNFYLAHYAYDNMIYFHVQKLSGGFVLTLLVAVGGIVGFSLVHDV

GVGFVFAAYVVVITTYLNLLGVMATMHQPNSPITSGRTVLWRTMPIVLVSPVVSTFVNGY

DLTIYLPVTYLFLLLLLWQYRRLCHEWTGWMDKIPSFNEKDVLEWYGKISKSGKSVVGSG

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SAPGGKGPEAFTTSWFTSLGEAVKQQRQLSRGLKEHNVLMLFRQAKYDLAQNLGLFLVAL

MDRWVSIVMAGREPTASMYTDKRSRYGICFALLYFCLSVMLLDTTLQKYWSVRFKLSTEK

LRDYDHAQLVAEKSERKRLRKLGQALSELVTKIMLVFGLTALLIWIFVENPETTILYYCY

VLGYTGVIVMQFNRCFTTSVRAHVTIIMLSALAGFLVGITLHAVPSTAGWLYNDVVAQNV

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RIADLSGGAYINNGTKDSKLARMILELLHSTFTHPNETAEKAPWSEQVTQRALDLWRSEK

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>SoG\_00098.T1

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KNQKVETRWFRSDTSAEDPDEQHQINNPENMGAFGWYVEILGILSNIHKFLKQPVDISAL

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SVRILADMRRTAFDLDFLISRQPRRGTAMGQKMGMEGTKTPRLDDLEYLDVFDFFNVPRL

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>SoG\_00124.T1

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PWARLVIRKKQNGGGDVLRVLSPNSAAVVFQGIWDGYYDGYVDKVWKKYANQDLTVNTQY

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>SoG\_00125.T1

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>SoG\_00128.T1

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GGSGSEPVHPADQGAMGWELFGRRAIRRGRYKAVFTPAPQGSDEWELYDIDDDPGEVRDL

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>SoG\_00146.T1

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>SoG\_00147.T1

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>SoG\_00150.T1

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GVR

>SoG\_00167.T1

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VRMFLKNGADVNPDISEASREWPLRIAVANKNQELVRILAPKTKRAPGTRALSDAVRHGD

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>SoG\_00168.T1

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>SoG\_00170.T1

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>SoG\_00180.T1

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>SoG\_00181.T1

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>SoG\_00185.T1

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GECKE

>SoG\_00187.T1

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>SoG\_00188.T1

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KELDHELGFLEHD

>SoG\_00191.T1

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>SoG\_00202.T1

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>SoG\_00214.T1

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>SoG\_00225.T1

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>SoG\_00231.T1

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>SoG\_00261.T1

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RCFP

>SoG\_00274.T1

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>SoG\_00291.T1

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>SoG\_00300.T1

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>SoG\_00302.T1

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R

>SoG\_00325.T1

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>SoG\_00331.T1

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IFKSQS

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>SoG\_00478.T1

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>SoG\_00482.T1

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>SoG\_00484.T1

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>SoG\_00495.T1

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>SoG\_00501.T1

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>SoG\_00528.T1

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>SoG\_00540.T1

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>SoG\_00618.T1

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>SoG\_00641.T1

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>SoG\_00658.T1

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>SoG\_00662.T1

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>SoG\_00672.T1

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>SoG\_00685.T1

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>SoG\_00691.T1

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>SoG\_00692.T1

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>SoG\_00696.T1

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>SoG\_00710.T1

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>SoG\_00726.T1

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>SoG\_00739.T1

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>SoG\_00743.T1

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>SoG\_00760.T1

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>SoG\_00762.T1

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>SoG\_00764.T1

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>SoG\_00765.T1

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>SoG\_00766.T1

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>SoG\_00768.T1

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>SoG\_00770.T1

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>SoG\_00773.T1

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>SoG\_00775.T1

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>SoG\_00783.T1

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>SoG\_00785.T1

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>SoG\_00792.T1

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>SoG\_00810.T1

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>SoG\_00818.T1

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>SoG\_00826.T1

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>SoG\_00827.T1

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>SoG\_00828.T1

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>SoG\_00836.T1

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>SoG\_00841.T1

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>SoG\_00845.T1

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>SoG\_00868.T1

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>SoG\_00874.T1

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>SoG\_00892.T1

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>SoG\_00897.T1

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>SoG\_00899.T1

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>SoG\_00901.T1

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>SoG\_00919.T1

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>SoG\_00930.T1

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>SoG\_00936.T1

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>SoG\_00950.T1

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>SoG\_00955.T1

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>SoG\_00957.T1

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>SoG\_00962.T1

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>SoG\_00987.T1

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>SoG\_00994.T1

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>SoG\_01000.T1

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>SoG\_01002.T1

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>SoG\_01013.T1

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>SoG\_01017.T1

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>SoG\_01018.T1

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>SoG\_01022.T1

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>SoG\_01024.T1

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>SoG\_01031.T1

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>SoG\_01042.T1

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>SoG\_01044.T1

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>SoG\_01045.T1

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>SoG\_01050.T1

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>SoG\_01053.T1

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>SoG\_01062.T1

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>SoG\_01072.T1

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>SoG\_01082.T1

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>SoG\_01087.T1

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>SoG\_01088.T1

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>SoG\_01091.T1

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>SoG\_01103.T1

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>SoG\_01104.T1

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>SoG\_01108.T1

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HPFSKSLPVGATRPSAPKPLHERVVATPNGSGQLWLGAFNSTGLVSKVNRNLEEEAAKKI

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>SoG\_01121.T1

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>SoG\_01137.T1

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>SoG\_01142.T1

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>SoG\_01146.T1

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>SoG\_01159.T1

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>SoG\_01160.T1

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>SoG\_01166.T1

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>SoG\_01168.T1

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>SoG\_01173.T1

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>SoG\_01175.T1

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>SoG\_01176.T1

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>SoG\_01179.T1

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>SoG\_01187.T1

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>SoG\_01190.T1

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>SoG\_01191.T1

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>SoG\_01199.T1

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>SoG\_01200.T1

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GSYLRYKPSTGKFLTITGDEATLPVTQGTPNLVFQPLTGGEIYQSVNSDPPILQSAKMAL

YEDFAGAVHVQHAYRFQNETSGPFQIRRARSTGSASSPWAREIVQASPDTTAAVGITHDG

TTVRIYYCRKGGSAWVLEKAGNAAWTNNELTAVQGKKVERLQALMRSDGTDVLYLGAPTN

VDSTTGSVYLLDVAGR

>SoG\_01207.T1

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IGHPTVDFFSQLMVMEERDDREVESMAAYLCEIAMYHRDFVSTKPSTMARSSLALARAIL

GRSEVTEGEWDQADDLTVLTLSQHLHQPSPTLARKYSSSNYCRVAQKLADFMAQQAAIAR

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>SoG\_01211.T1

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CGSPPYIAPEILACGRVDRRAGTGPKYSPDLVDLWSCGVILFVLLVGNTPWDEPSQGSWE

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>SoG\_01220.T1

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GLADNTIVIFSGDHGDMLGERGLWYKMSYFESSVRVPLLVNYPKWFEPHRVSQNVSTLDL

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>SoG\_01237.T1

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>SoG\_01238.T1

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>SoG\_01243.T1

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>SoG\_01244.T1

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>SoG\_01250.T1

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>SoG\_01253.T1

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>SoG\_01257.T1

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IQRHMA

>SoG\_01262.T1

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>SoG\_01275.T1

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>SoG\_01279.T1

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>SoG\_01292.T1

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>SoG\_01306.T1

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>SoG\_01310.T1

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>SoG\_01339.T1

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>SoG\_01517.T1

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>SoG\_01520.T1

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>SoG\_01533.T1

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>SoG\_01543.T1

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>SoG\_01549.T1

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>SoG\_01554.T1

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>SoG\_01580.T1

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>SoG\_01611.T1

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>SoG\_01613.T1

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>SoG\_01621.T1

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>SoG\_01634.T1

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>SoG\_01689.T1

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>SoG\_01699.T1

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>SoG\_01701.T1

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>SoG\_01703.T1

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>SoG\_01708.T1

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>SoG\_01712.T1

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>SoG\_01718.T1

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>SoG\_01719.T1

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>SoG\_01727.T1

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>SoG\_01730.T1

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>SoG\_01828.T1

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>SoG\_01843.T1

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>SoG\_01849.T1

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>SoG\_01858.T1

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>SoG\_01872.T1

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>SoG\_01900.T1

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>SoG\_01901.T1

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>SoG\_01942.T1

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>SoG\_01944.T1

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>SoG\_01955.T1

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>SoG\_01958.T1

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>SoG\_02001.T1

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>SoG\_02008.T1

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ANVMPKLCARVWNLYAEGKREEAAELQKVLSRGDWPLTKAAIAGTKHAIQAYYGYGGYPR

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>SoG\_02022.T1

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VASPEPFSSWSASSERQLGHHSVASDTSDRVFPIRSVVSVDPANKSEDYFPPLSDSEGRG

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SQPLDLNISTSDKDTEEEAQQDEPPAVAAAVEGESLSGVSRVSMDTPHVTTRFTHVMTDE

GHAVITGRDDVLQRCEDEPIHTPGAVQGFGVLIALREENDGRFVARYVSENVEKMLGYTP

HHLFRLQNFLDILTEEQQDNLLDHIDFIRDEDADPAVNGPEVFSISVRPPKRKSTKLWCA

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SVEVYVKEIRDHHAIIEFVVADSGSGMSSQKLDNLFRDLEQVSTEEPDDEAQDPSDTRTL

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FDVILMDMQMPIVDGLTSTKMIRAYEKSSENKGHSKLAAGNGRIPIFAVSASLVESNRQT

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>SoG\_02028.T1

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>SoG\_02029.T1

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>SoG\_02031.T1

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LT

>SoG\_02034.T1

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GCPS

>SoG\_02040.T1

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>SoG\_02048.T1

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QHPV

>SoG\_02052.T1

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>SoG\_02057.T1

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>SoG\_02065.T1

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>SoG\_02066.T1

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FASRPKQWAQPP

>SoG\_02067.T1

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>SoG\_02083.T1

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>SoG\_02087.T1

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ICNEPNGLTGSTTIDTFSWVLWRVEFDLRNSDWRQQYIIWSKNGQEFFRIAGSRVNNQGV

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>SoG\_02089.T1

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>SoG\_02092.T1

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GIQ

>SoG\_02093.T1

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>SoG\_02096.T1

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SNNNVVGVRILKSSVSNSENGVRIKTISGATGKVNNILYQDITLKNIANYGVVIEQDYLN

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ENVPSPAQCS

>SoG\_02102.T1

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PEYKFPYAVNDCFDALKWCHENAESLGCDPNKIIVNGGSAGANLATVSALAARDASIPVA

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>SoG\_02104.T1

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PRAYSSAIEYLRINGLLMVIGISTEDLKVSTFDLTTGRYRIKADSTSIPQRMAKAVEFTA

KHKIQPDVEFRKLEDLPQMVADMHAGKAKCRQVVVF

>SoG\_02119.T1

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VLPLSFRLIVLDTNLLIKKSLNILIQNSIVSAPLWDSQASKFAGILTSTDYLNVIRYYCQ

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>SoG\_02128.T1

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>SoG\_02141.T1

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>SoG\_02144.T1

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ELQHPNIISLLSVFSSRDQNLNLVLEYLPLGDLEELIRDVDSVRYGAPDIKAWMGMLTRA

IWFCHENFVLHRDIKPNNLLIAADGEIKLADFGLARSFADPHINMTPNVITRWYRPPELF

FGCKHYSGAVDIWSVGTVFAELVLRRPYLPGNTEIDQVRLICENIGTPTESNWPGVSKLS

EYTVVEGHALKTRQEFEMRFGIVGRDGVDLLMKTLSLDPKKRITARGMLDHPWWHAEPQP

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>SoG\_02158.T1

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LQVTRPGDEKPVTFHARFLLLGTGYYNYETPLETVIPGLENFKGKVIHPQFWPEDYDYTN

KDVVVIGSGATAVTIVPSMSDKAKRVTMLQRSPGYIFPLPSHSLFTTILFTLFPSRIAYF

FNRLLWLFKSYMTTLFCKSYPGLAKSVIKRVTIKQLPPDVKWDPHFKPRYNPWEQRFCAS

LNGDFFAAIRSGKADVVTDRIKTVTENSIELESGNSLHPDTIVTATGLKLRFGGGIKFLV

DGKEVNVSDRYAWRTTMLQDVPNLFFIFGYENASWTLGADVGAQLFVRIYNRMRNRSQTV

VVPRLTPPANPVVKPMMSLSSTYLKNAGSILPKGGEGQWSPKTNYFADMVGAKWGDITSE

LRYT

>SoG\_02159.T1

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WSPWVDVSAALMQDMTQSPNYGTDYLNKEFGRWGAQTISNNLALDPAGPYLSPLHHPFEL

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>SoG\_02163.T1

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>SoG\_02167.T1

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HMVFDMGAGSTKATVMKFQSRNVKDIGKFNKTVQEVQVLGSGWDRTLGGDALSNLIVDDM

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L

>SoG\_02192.T1

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>SoG\_02194.T1

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FFDRQDERRELVKSLFPLATKYGDHMTFVTVHSWDYNQQCDRMHIEKTVRRGFAIADPHG

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DKSRDVLVEFYSAWCQYCTELHEVINNLGSKHVDARLSEKVALAKINVEENDVPIGIDGY

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>SoG\_02202.T1

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>SoG\_02203.T1

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NEHAPTLNWSRLAWFDKLKWQSLGSSSSEEEAARKKEAVPAIYRNLFKADRYDGLPRTVI

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VALHGAAKDL

>SoG\_02207.T1

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>SoG\_02210.T1

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>SoG\_02215.T1

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>SoG\_02229.T1

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>SoG\_02232.T1

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>SoG\_02250.T1

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PISPVAIQNQFAQQTHGHGPDRAGFFASGMMIPQQTNPLLQSMEPQMMLDGFTLEANGVL

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>SoG\_02261.T1

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>SoG\_02281.T1

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>SoG\_02282.T1

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>SoG\_02288.T1

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AISIVEGISPDGTGDVLKALEPFLDRLGVRYYYSTSEIDSKKGNRIEKLALLRNLALEPL

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>SoG\_02289.T1

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>SoG\_02290.T1

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>SoG\_02292.T1

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>SoG\_02305.T1

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>SoG\_02308.T1

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>SoG\_02315.T1

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>SoG\_02316.T1

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>SoG\_02324.T1

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>SoG\_02349.T1

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>SoG\_02353.T1

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>SoG\_02359.T1

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>SoG\_02370.T1

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>SoG\_02391.T1

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>SoG\_02408.T1

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>SoG\_02416.T1

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>SoG\_02465.T1

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>SoG\_02472.T1

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>SoG\_02495.T1

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>SoG\_02506.T1

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>SoG\_02507.T1

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>SoG\_02513.T1

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>SoG\_02519.T1

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>SoG\_02526.T1

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>SoG\_02535.T1

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>SoG\_02550.T1

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>SoG\_02552.T1

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TQVL

>SoG\_02553.T1

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>SoG\_02556.T1

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>SoG\_02558.T1

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>SoG\_02560.T1

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IVF

>SoG\_02562.T1

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>SoG\_02569.T1

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>SoG\_02575.T1

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>SoG\_02586.T1

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>SoG\_02614.T1

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>SoG\_02629.T1

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>SoG\_02643.T1

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>SoG\_02658.T1

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EE

>SoG\_02673.T1

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>SoG\_02674.T1

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LWDRG

>SoG\_02680.T1

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>SoG\_02692.T1

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>SoG\_02710.T1

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VLGTPTREQIRTMNPNYMEHKFPQIKPHPFNKVFRKADANAIDLIARLLEYTPTERQSAI

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>SoG\_02727.T1

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>SoG\_02729.T1

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>SoG\_02745.T1

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>SoG\_02746.T1

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>SoG\_02750.T1

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>SoG\_02752.T1

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>SoG\_02763.T1

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>SoG\_02765.T1

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>SoG\_02767.T1

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>SoG\_02776.T1

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>SoG\_02781.T1

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>SoG\_02789.T1

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>SoG\_02802.T1

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>SoG\_02806.T1

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>SoG\_02809.T1

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>SoG\_02812.T1

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>SoG\_02816.T1

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>SoG\_02828.T1

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>SoG\_02836.T1

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>SoG\_02837.T1

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>SoG\_02839.T1

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>SoG\_02856.T1

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>SoG\_02860.T1

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>SoG\_02861.T1

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>SoG\_02886.T1

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>SoG\_02888.T1

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>SoG\_02890.T1

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>SoG\_02895.T1

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>SoG\_02910.T1

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>SoG\_02914.T1

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>SoG\_02918.T1

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>SoG\_02924.T1

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>SoG\_02943.T1

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>SoG\_02945.T1

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>SoG\_02951.T1

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HQCL

>SoG\_02954.T1

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>SoG\_02959.T1

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>SoG\_02968.T1

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>SoG\_02969.T1

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>SoG\_02974.T1

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>SoG\_03000.T1

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>SoG\_03001.T1

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>SoG\_03005.T1

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>SoG\_03006.T1

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>SoG\_03011.T1

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>SoG\_03019.T1

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>SoG\_03026.T1

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>SoG\_03029.T1

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>SoG\_03032.T1

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>SoG\_03034.T1

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>SoG\_03048.T1

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>SoG\_03051.T1

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>SoG\_03057.T1

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>SoG\_03077.T1

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>SoG\_03086.T1

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>SoG\_03096.T1

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>SoG\_03101.T1

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AHRERLLPPINKDGSVGAIVGLDGQPGFTQILYTHGTTEKYSVKHGHARSAYSPLGSQES

LWRSLEIVGDFTPLETGSHYIACSGIGPTWVYVDDDVVFEQAGNSSDPMGSLFLAAPEPE

VQHRFDAGRTYRVRIRSECPVGIGLEILEGRSGVRVGFSLESVHDADLKGEAARVAADAD

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>SoG\_03121.T1

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>SoG\_03122.T1

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>SoG\_03123.T1

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SKVKVSGGQTVSSNASVKVGNPKLWGPVPSQQPHLYVAVTRLYDGPREIDTYQTTFGIRT

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>SoG\_03135.T1

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VANNVTITTRNGSWVDLVFYASNFPMPAHPIHKHGNKMYEIGRGKGDWKWQSVEDAVEEM

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>SoG\_03147.T1

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GK

>SoG\_03148.T1

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>SoG\_03149.T1

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>SoG\_03158.T1

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>SoG\_03159.T1

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DRNSDGSSRYPAPGQVPGLLESYYPGALAAVRDAEASLSPPVSDDKKLHVQFMSEKWGSG

DPRTVSQIMNDAAVAFDDHNYIGFAVDDNGDQYKLMHSACTDSRVVDGESLIIAGEWSMT

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>SoG\_03187.T1

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>SoG\_03192.T1

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>SoG\_03195.T1

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>SoG\_03218.T1

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>SoG\_03221.T1

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>SoG\_03222.T1

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ARDNLGSSNVSTSIAPNVVKFSFGSGQKQGLVEHFFQSDIGHDWPSTAPNNDNQRAGHHV

ASYNATPIIVDFFSRHSL

>SoG\_03223.T1

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FAIVVGCPNLSSLLLSRLGVDARAFGVGEDELDTVPYDKLEKTMTEEQRRRWPRALAELA

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>SoG\_03232.T1

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AQWNTLEEDAQTIYDGLDEAYQPAFFQMILHPVIAGRIVHEIYVTGAMNNLYAWQKRNAA

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YAIALYPANDSTPQDPKRVRFVGETQGAGMPAQWGHSVSDAVWGVRSNTSTTGFNVTYEG

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>SoG\_03236.T1

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>SoG\_03270.T1

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VAKGVMW

>SoG\_03293.T1

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>SoG\_03297.T1

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>SoG\_03302.T1

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>SoG\_03304.T1

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>SoG\_03307.T1

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>SoG\_03320.T1

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>SoG\_03329.T1

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>SoG\_03330.T1

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>SoG\_03331.T1

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CIN

>SoG\_03338.T1

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>SoG\_03341.T1

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>SoG\_03346.T1

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>SoG\_03355.T1

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>SoG\_03359.T1

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>SoG\_03371.T1

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>SoG\_03383.T1

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>SoG\_03388.T1

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>SoG\_03397.T1

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>SoG\_03400.T1

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>SoG\_03404.T1

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>SoG\_03409.T1

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>SoG\_03411.T1

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>SoG\_03413.T1

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>SoG\_03422.T1

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>SoG\_03433.T1

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>SoG\_03445.T1

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>SoG\_03447.T1

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>SoG\_03449.T1

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>SoG\_03464.T1

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>SoG\_03477.T1

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>SoG\_03480.T1

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>SoG\_03482.T1

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>SoG\_03486.T1

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>SoG\_03493.T1

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>SoG\_03498.T1

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>SoG\_03504.T1

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>SoG\_03511.T1

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>SoG\_03528.T1

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>SoG\_03538.T1

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>SoG\_03546.T1

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>SoG\_03551.T1

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>SoG\_03558.T1

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>SoG\_03564.T1

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>SoG\_03569.T1

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>SoG\_03580.T1

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>SoG\_03593.T1

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>SoG\_03617.T1

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>SoG\_03625.T1

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>SoG\_03637.T1

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>SoG\_03638.T1

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>SoG\_03643.T1

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>SoG\_03648.T1

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>SoG\_03649.T1

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>SoG\_03662.T1

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>SoG\_03682.T1

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>SoG\_03685.T1

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>SoG\_03709.T1

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>SoG\_03713.T1

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>SoG\_03717.T1

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>SoG\_03718.T1

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RF

>SoG\_03738.T1

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>SoG\_03746.T1

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>SoG\_03749.T1

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>SoG\_03750.T1

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>SoG\_03760.T1

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>SoG\_03766.T1

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>SoG\_03773.T1

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>SoG\_03775.T1

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>SoG\_03778.T1

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>SoG\_03795.T1

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>SoG\_03797.T1

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>SoG\_03806.T1

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>SoG\_03821.T1

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>SoG\_03831.T1

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>SoG\_03846.T1

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>SoG\_03848.T1

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>SoG\_03872.T1

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>SoG\_03874.T1

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>SoG\_03875.T1

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>SoG\_03882.T1

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>SoG\_03902.T1

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>SoG\_03906.T1

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>SoG\_03915.T1

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>SoG\_03920.T1

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>SoG\_03933.T1

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>SoG\_03935.T1

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>SoG\_03944.T1

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>SoG\_03958.T1

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>SoG\_03962.T1

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>SoG\_03976.T1

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>SoG\_04010.T1

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>SoG\_04018.T1

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VELE

>SoG\_04019.T1

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>SoG\_04031.T1

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>SoG\_04033.T1

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>SoG\_04034.T1

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GTI

>SoG\_04037.T1

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>SoG\_04041.T1

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>SoG\_04044.T1

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>SoG\_04045.T1

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>SoG\_04051.T1

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>SoG\_04054.T1

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>SoG\_04069.T1

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>SoG\_04086.T1

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TWESPFFYISYRQ

>SoG\_04088.T1

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>SoG\_04092.T1

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>SoG\_04096.T1

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>SoG\_04097.T1

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>SoG\_04104.T1

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>SoG\_04109.T1

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>SoG\_04112.T1

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KGLEISTV

>SoG\_04115.T1

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>SoG\_04117.T1

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VVSRSRL

>SoG\_04118.T1

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>SoG\_04119.T1

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>SoG\_04120.T1

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>SoG\_04123.T1

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>SoG\_04125.T1

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>SoG\_04132.T1

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>SoG\_04137.T1

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>SoG\_04140.T1

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FNQSDFWVRAKRRR

>SoG\_04158.T1

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>SoG\_04179.T1

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>SoG\_04183.T1

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>SoG\_04184.T1

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>SoG\_04189.T1

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>SoG\_04191.T1

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>SoG\_04195.T1

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>SoG\_04206.T1

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>SoG\_04211.T1

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ARRKER

>SoG\_04218.T1

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>SoG\_04356.T1

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>SoG\_04357.T1

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>SoG\_04365.T1

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>SoG\_04369.T1

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>SoG\_04377.T1

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>SoG\_04386.T1

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>SoG\_04393.T1

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>SoG\_04397.T1

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>SoG\_04408.T1

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>SoG\_04427.T1

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>SoG\_04429.T1

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>SoG\_04444.T1

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>SoG\_04450.T1

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>SoG\_04458.T1

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>SoG\_04459.T1

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>SoG\_04461.T1

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>SoG\_04477.T1

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>SoG\_04478.T1

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>SoG\_04482.T1

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>SoG\_04483.T1

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>SoG\_04484.T1

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>SoG\_04490.T1

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>SoG\_04494.T1

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>SoG\_04495.T1

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>SoG\_04497.T1

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>SoG\_04506.T1

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>SoG\_04509.T1

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>SoG\_04524.T1

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>SoG\_04525.T1

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>SoG\_04533.T1

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>SoG\_04536.T1

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>SoG\_04540.T1

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>SoG\_04546.T1

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MRPITC

>SoG\_04548.T1

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>SoG\_04551.T1

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>SoG\_04571.T1

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>SoG\_04578.T1

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>SoG\_04584.T1

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>SoG\_04585.T1

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>SoG\_04587.T1

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>SoG\_04592.T1

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>SoG\_04593.T1

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>SoG\_04595.T1

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>SoG\_04596.T1

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>SoG\_04679.T1

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>SoG\_04686.T1

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>SoG\_04691.T1

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>SoG\_04693.T1

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>SoG\_04699.T1

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>SoG\_04700.T1

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>SoG\_04701.T1

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>SoG\_04702.T1

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>SoG\_04713.T1

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>SoG\_04722.T1

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>SoG\_04767.T1

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>SoG\_04800.T1

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>SoG\_04803.T1

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>SoG\_04822.T1

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>SoG\_04825.T1

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>SoG\_04833.T1

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>SoG\_04858.T1

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>SoG\_04859.T1

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>SoG\_04861.T1

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>SoG\_04887.T1

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>SoG\_04897.T1

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>SoG\_04904.T1

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>SoG\_04914.T1

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>SoG\_04915.T1

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>SoG\_04925.T1

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>SoG\_04938.T1

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>SoG\_04952.T1

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>SoG\_04956.T1

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>SoG\_04960.T1

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>SoG\_04968.T1

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>SoG\_04971.T1

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>SoG\_04974.T1

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>SoG\_04980.T1

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GIK

>SoG\_05009.T1

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IELDPAMTQSYIKRASISLELGDPAKADEEFAKALEQNPEDPDVYYHRAQAHFIKGDLSD

AQKDYQKSIELDKDFIFSHIQLGVTQYKMGSIASSMATFRRCIKNFPKVPDVYNYYGELL

LDQGSFSEAIEKFDTAMEMEKQTKPMAMNVLPLINKALALFQWKQDFKEAEKLCQKALII

DPECDIAVATMAQLLLQQNNVPGALKYFERAAELARTEGEIVNALSYAEATRTQVQVTEK

YPKLAAKLAGGASGPPPGLRMGPQ

>SoG\_05013.T1

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WGHDELAPLATTGKKTLNGWGAQIIDALDTLWIMDLKDDFYLAVRHIATIDWSATTDQIN

VFEVTIRYLGGLISAYDLSGQQVLIWKAMELADMLYSAFDTPNRLPPHWLDIHKAKNGQQ

QADKRMSGAAGGSLALEFTRLAQITRNDKYYDATERLKQFFCKSQNATEIPGLWPHTMNY

RDESMDKTLYTLGAGSDSLYEYLPKMHALLGGLDKDYEKMTVKALDAARDNLLFRPMSPN

DENVLLAGKATVNKNKIVELAPETEHLACFAGGMYALAGKLLNNGHFVDLGSRLTSGCIW

AYDSFETNIMPEIAELAACPTIHRACLYDPVALPSGRAKNLPPGFVRVRDTSYRLRPEGV

ESVFYMWRITGDNKWREAAWRMWEGISRETETEIAYAAVDDVRYHHSQHLDSMETFWMGE

TLKYLYLTFEQHHVMSLDDWVFNTEAHPFKRPR

>SoG\_05029.T1

MDRVLERTPEGTSPRTFALNHLRPKSSFVGCSRISEYELMGKLGEGTFGEVHRARSRKNG

NIVAMKKIIMHHEKDGFPITALREIKLLKLLSHENVIRLEDMAVEHPSRPNPPPADKRKK

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IDVWGVGCVFGEMLKGKPILAGESDSHQLDLIWDLMGSPTDEKMPGWKQLPGGHHLTPRS

RPGNLDSKFKGFGQGAVSLLAELLRLDWKTRINALDAMDHPYFKAKPFPAKPHEIPTFEE

SHELDRRKFHDRKANLPAAPRGGTVGVGPDVNGATAGFNSGDGFNGRNGMNGGSRHRGYD

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>SoG\_05054.T1

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NWGDTIQVTLHNNITNPPEGTALHWHGILQKGRPWQDGVPAVTQCPVPPGKTFTYQFVAD

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FVPVEPYETDVVTLGIGQRTDVIVKADQTPGAYWMRSNISTACSPTRYQPNALAVIYYEG

TDDKQEPKSQAWDRPDPGTCANDDLSKTKPLMRLKPPNADKFYDMNVELFTNATGHLLWK

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>SoG\_05060.T1

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PVPSFTTSQDIPGPTLTVPSPIQTGIIDGCTEYYKAVDGDDCSKIVAVHGIFTLSDFLNW

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>SoG\_05061.T1

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DHVDAIITGWEETCLKDKDTGEYCNDIIDSWDEYEELEKMPEKELCSYCYGAKLRLMQES

EFSVYDENYQAMLEYVNKECDVDSPTTPINEPPQINSTEPGACYSGNKITTSDGDSCDRL

ASANSVSSSNLYYINPNLLNCSAIEPGIDLCLPETCQTHTVTSQDETCVDIADEAGTSWT

DLVEWNLMLDSRCSNVWSTEPFWGRVICVSVPGGKFDDEFPSNGGGGGGGNDDGNSGPGN

GNSGGEGGTGNGYSNVVVPPPSGGEVANGTTLSCGYWVQAREGDAGSEGSCARTILVPGR

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>SoG\_05062.T1

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SSTKAFIDSLARMMTTYGFDGVDIDWEYPVAEDRSGRPEDYKNIVTFMTALRTRMKSIKK

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VGSVSTGCKSGYQSACCTEGEVVDAYGECLWSDCTDEPEKVCGNRFILSSTTGWSGQRRC

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IYDMFGGGGPQKRSLVQEAREHDRIIGRQVSRGCTMDDWMKLVSYATYMIKMGDVAFGGM

RLLWDSIFADEFGRGVDSDTIIDFLIDYQHINTRYQIEYILLNPYAAADAMEDTRVSSSE

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GDRWVVFHFHFSPRPEEWLRAEGQYTYMGVEGFRLFHAREPLINPDRPDVAWRVDAHNNL

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>SoG\_05063.T1

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VIVNEAAIRLMLKHHASVVQPDEMGECPLHWGAFAFDDLYYFRLYLSSSSDIEAALRVEN

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ARAPLLSPVPKRGYCELNVPWGRRLPPAIKEPSTVNMIKKPDLPPLHWAADRGAVGVIRG

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>SoG\_05066.T1

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PLHTAVQPNPGQLDVLNPDTYDAVRKVYAELSNRFADEFFHVGGDELQTNCFNFSKTIRE

WFEEDKSRTYSDLNQYWLDHALPIFTSKNITAGKDRRLVMWEDVLLSANSAAHNVPKDVI

LQAWNDGPNHVQNITARGYDVIVSSSEFFYLDCGLGGYVTNDPRYNVQVNPDPATPNFNY

GGGGGSWCAPYKTWQRIYSYDFTANLTEEQKKHVLGVTAPLWSEQIDDSVISSRMWPRGA

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DQDVVK

>SoG\_05074.T1

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STEIALLLQPRD

>SoG\_05080.T1

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>SoG\_05083.T1

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NAGTFVGPDLVLMMGACMLALACF

>SoG\_05091.T1

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AHAQDPPQAMLTGECPTVGLVGGLVQGGGHGPWSPLKGMTADTALSFDVVTADGEFKTAN

AVENEDLFWALKGGGPGNYAVVLSATFKTWNDLPSAGAYMFMNFTTISDPDVYWEGIRIF

HGHASRMTSAGLYVYFELGELMLRVLPFVGINKSRGELDILTKPLLDELKAADVPFEYAS

SEYPTFYDLYTTMFEDEAPAHALTGGWTFTHEDVDASNDEIVAALRKAVNPRQDLAGRGF

LVGHFFDAGHTLSKPDSSTHPAFRRSVNLVITTLPVALNASLEEKADLQHLLTHTIDEPL

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EYGTRLCQPVK

>SoG\_05117.T1

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>SoG\_05134.T1

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IQAKALGMAVDVLDGTRDEPFSVASQGLQGELVCRQPFPSQPLGFYGSDGPKRYRKAYFE

RYGDLIWQQGDFVRILPDTKGIIVYGRSDGVLNPSGIRFGPADIYSVTERIPSIEDAICV

GRQLEGDTDEKVLLFVKLSPGLQLNQSLQSEIRQMIAQKLSRRHVPRHIFQVQDIPCTVN

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>SoG\_05136.T1

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ARELLGTLPHTFIESRFATSRQVTVSKLDALDDRALERRQRLFESLNFSQIDAHKTTIKA

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KELLKGAVMALGQHSFTCFIDALDECDELEVRDMVQFFEDLAETTSDSMKFRVCFSSRPY

PYISISKGVLLTLDEEPGHAEDLAVYVSSKLRIEDRFLLEELKSEILRKAAGIFLWIKLV

VDILNKEENDGGLALRKKLSEIPARLSDLFRSILLRDENARERLQLCILWVLCAKRPLTP

AEFRHALWVGLLNQEPGEQDRQVDSELPEVGSENACLKLVTSSSKGLVEVTRSKQPIVRF

IHESVRDFLVKEKGLQDIWSDFGFGWEARSHERLKRCCDTYLSLPGVQAIVNGPEDRHET

SSVTERYSFLEYASQQVLHHANEAAIVIPQDDFLFRFFDSGMIRVINLCEKYKARRYGSG

ATPLYILADRGLERLIRMQMKRDSPTYAYSERYKHPFFAALASGHKGAVAAVLGLPSTMC

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SRNGHEAVARLLIDNGADINGWAALILASRHGHEAVARLLIDNGADINLQANDGWTALIK

ASRHGHEVIARLLIENRADVNLQANAGRTALILASWYGHEAVARLLIENGADINLQANAG

WTALMEASMHGHEAVARLLIENGADINLQDNDGWTALIKASMHGHEVIARLLIDNGADIN

LQSKHGWTALTFALDHGHKAVARLLRCAAGQHPE

>SoG\_05144.T1

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CDGWSFDMFQRVQDRLRNTTRSCAHPRDQNQLSKDWIASTQKGLGLPYISNLNNALSSSG

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SVDLTLQDGTKSTLSASTEIILTAGSIDTPRLMLLSGLGPRQHLESVNIPVVRDIPGVGE

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GIKAARRIAEAQPFKSWIKKEIAPGPSVVTDEDLNKYARAASHTIYHPACTTKMGNIEED

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L

>SoG\_05152.T1

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LKEALRIMLRQFNAPIVYCFAYGSGVFPQENSGRSITEAEFRAVHPKPPPALMKAQKGAP

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>SoG\_05154.T1

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AEAATVPPTPIFESRAVHEDGNQLGLILSIFKTLGTPNKEIWPEAADFKVNPFELWTVFP

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>SoG\_05167.T1

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RNQTSIQPQGQQEEVGMATTMSNPMQGATSQRQEQVGINQEQQALPNPTYPGLSAMGHPI

MANTTGYDVAMTLGFDPMYDNSQPDIFLDSFWPTDAQEEWWNGPGGNNILRTSDNVLFLD

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SKPRISRNAASVDIKNTGSRDGSEVIQVWVSQTSPSRFSRPVRTLAAFAKTHLQVGQVKT

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>SoG\_05170.T1

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TTGLGKKPRATGVDFMVGEGLYSADQRYDPSQGGEIRTVKARKEVIVSGGAFNTPQILKL

SGIGPREELEALGIPVIVDLPAVGQNLMDNYETPLQIRAQEPWIVGQPSPCTRTFDDDDP

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SFLPHEWATAIVKMQTSNTAGTVTLNSTDPREAPIINFNYFSESRERDLDAIVEGIELLL

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LRVVDASVFPRSPGAMPNAPTYTISRKAYEVILEDNKEME

>SoG\_05171.T1

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>SoG\_05178.T1

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FQPYQSLPAAFVNQTIIERASVLSAALSDTFGVRQAWWTTSVKVESSDTFLKIAEMHKKA

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>SoG\_05189.T1

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>SoG\_05190.T1

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>SoG\_05192.T1

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>SoG\_05197.T1

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>SoG\_05202.T1

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GSG

>SoG\_05215.T1

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IEEAFSW

>SoG\_05217.T1

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>SoG\_05226.T1

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>SoG\_05236.T1

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>SoG\_05248.T1

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>SoG\_05252.T1

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>SoG\_05262.T1

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R

>SoG\_05266.T1

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>SoG\_05296.T1

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>SoG\_05298.T1

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>SoG\_05300.T1

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>SoG\_05328.T1

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>SoG\_05357.T1

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>SoG\_05472.T1

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>SoG\_05473.T1

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>SoG\_05481.T1

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>SoG\_05510.T1

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>SoG\_05527.T1

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>SoG\_05578.T1

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>SoG\_05637.T1

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>SoG\_05639.T1

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>SoG\_05640.T1

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>SoG\_05650.T1

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>SoG\_05670.T1

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>SoG\_05673.T1

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>SoG\_05714.T1

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>SoG\_05720.T1

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>SoG\_05722.T1

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>SoG\_05724.T1

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>SoG\_05749.T1

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>SoG\_05761.T1

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>SoG\_05768.T1

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>SoG\_05781.T1

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>SoG\_05783.T1

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>SoG\_05788.T1

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>SoG\_05799.T1

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>SoG\_05815.T1

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>SoG\_05826.T1

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>SoG\_05839.T1

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>SoG\_05846.T1

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>SoG\_05852.T1

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>SoG\_05856.T1

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>SoG\_05870.T1

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>SoG\_05886.T1

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>SoG\_05889.T1

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>SoG\_05903.T1

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>SoG\_05906.T1

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>SoG\_05907.T1

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>SoG\_05908.T1

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>SoG\_05913.T1

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>SoG\_05914.T1

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>SoG\_05917.T1

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>SoG\_05940.T1

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>SoG\_05950.T1

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>SoG\_05952.T1

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>SoG\_05963.T1

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>SoG\_05964.T1

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>SoG\_05977.T1

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>SoG\_05987.T1

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>SoG\_05989.T1

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>SoG\_06003.T1

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>SoG\_06004.T1

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>SoG\_06048.T1

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>SoG\_06056.T1

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>SoG\_06075.T1

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>SoG\_06076.T1

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>SoG\_06090.T1

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>SoG\_06094.T1

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>SoG\_06095.T1

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>SoG\_06105.T1

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NNFDNDLFQQYHESRDGRYISSKHDGKVYAFDFGRSKQGAKLYSEKFSSPVARVFDVCRP

WDAPLESNPQLVILPQPPMPSQDQDEEMLRARDNRIFINQTENGGWFALSGRSYPLVVDA

PIAQIAKVDWAELGPIWDTISEAQVSRVLVGTHYLDHLHTPSPGQPPTLPPGMVYDSTED

TERDNESLLPVDALAEDLDATLIKKFKSLPRSAADSVVEFISNPILIILFFGALIYNEKK

LRQTYGHFRRRRSWREIVPYLINGHEPHGKGEASELDHAVEPIAATKETIQSDDHAPPRS

QSGDSIDQKDDEVKDEPIAPASENKNDDAEGSVGNANDEGSDDKTLAANAGPEKKKKAHR

GRRGGVKHKKGKARENSLSRNDEPNSATVEEAVNNAKRLGDRPAFEPDVMTVANDMQAVT

GPIIRMGNIEVNTEEQLGTGSNGTLVFAGKFDGREVAVKRMLIQFYDIASQETRLLRESD

DHPNVIRYYSQQIRDGFLYIALERCAASLADVVERPSHFRALANAGRMDLPGVLYQITNG

ISHLHQLRIVHRDLKPQNILVNMGKDGRPRLLVSDFGLCKKLEGGQSSFGATTGRAAGTS

GWRAPELLLDDDARDAGVMEFSTHSGSGSVLVNDNNLGPNSRRATRAIDIFSLGLVFFYV

LTNGSHPFDCGDKYMREVNIRKGNHNLKALDSLGDFAYEAKDLIASMLDADPKVRPSARD

VMAHPFFWSAKKRLSFLCDVSDHFEKEPRDPPSDALVELERHSSDVTKGDFLRVLSREFV

DSLGKQRKYTGSRLLDLLRALRNKKNHYEDMSDSLKRSVGPLPEGYLSYWTTRFPMLLLV

CWNVVYNVRWEETDRFREYYEPAGL

>SoG\_06108.T1

MKSLPSKGHQGRDLLEVHIAIAAHIQLWVALALIHLTSSVDLVSTMATKIIALLSLLGAL

APHAVASPCKPSRSTSLVSIETTTAVLDTTTTPATTTSNASSQLVTTTSSSSETSTPETP

RTPVNTPVYTPTPVSTPSDTPVDTPTPASTPSDTPVDTPTPISTPTPTPTPTPIVVDCRI

QGASRITPITRVATVSVAGCQQACLADKTCEAFLPNYSGYCYLYNKPVSQFVNRGNSGAF

FYDRLCTV

>SoG\_06109.T1

MVRANLLLSCLLAILSGLVETSVASGPSAVPGAFMFEFQGGADTELFTESFQGIADVRML

INRTLFRGTSLQFRDPDSAADKAVELARLPCVKGVHRVHTISLPDKATWSGILEVQESPG

NSHQERSDNNNRHPIRVNSAHIMTQVDKLQAMGFTGRGIKVAVVDSGIDYTHPALGGCFG

KGCLVSYGTDLVGNEYPTVTKPGPDPKDCYGHGTLVAGIIAAQPNRYGFIGAAPGVELGA

FKVFPCGGDVEDERIIDAFYAAHEQKSDIISASISKSGGWSTSLLSMTVSRLVEKGVICV

IGAGNNGESGIFFGNDPASAASAITVGSFQNTITPKFLPGGTYTIGPGPEQEFALQTSEL

EQWRNLNLTLCVVSNDTDIKDDACKALPQDTPDLSGCIALVRRGDCPFQGKMKNLASRGA

NYVIIYDNGSGLVDIPTEDVEVAAAMVTAEQGAEWASAIKTGSIVTLHTHAEMPVDVLAL

QHNTNDGGFPSVFSSWGPTWDLHVKPNFGAPGSDILSTYPVANGSYAIRQGTSLSTPLVA

GAIALIAEARGTLDPMEIRSILSASSKATDFHNGNESIGVLAPVPQQGAGLIQAFDAAFS

SAVLDVASISFNDSLHGALQSTFSIKNVGDADLFFSFRHRPAATVYTYAPGTKKPMAFPN

DLTLEHVDLQLEPREFTIQPGNEIALMATVVTNENIDSSRLPVWSGFIDLLASDDRVHSL

PYIGIGANMYGESILGNKTNIYIGLPESADMAMSNKTNDLSDFNITLAPDNMTFELPYPG

MSNRTFLLPILCADLALGSAVVWIDVVPVGAFADPGLPVSEHLGLSSIGSLVPAPLKHVG

RTRAVFSWDGSLPSAGGKHVPEGEYKLIVRSLRFYGDAMKPDDYDTWESPVFRIRYKQRP

TVASFT

>SoG\_06127.T1

MEPPVATFLKDAVSHPYSTYDKDMSNYVPNTLSSLALVACFAAGCVAMFTATHAIIQGYR

PSLSFGDRSLMMWFVMCGFIHFFFEGYFAYNFNDMPSRTDLFGQLWKEYALSDSRYQTKD

SFVTCMEAITAIAWGPLSFAIAYFILVDHPLRHPISIIVSLGQFYGDVLYYATCFFSERV

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>SoG\_06135.T1

MAEVDVAPTFGAELKDGYKPATAWAGHGIAWLEDIQQYYRERAAIEKEYSAKLAALAKKY

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LLSQVAEPLKYFGTRFEELRKRHNDYAEKLEKERDGSYAELIRVKGKYDTTCSEVEAKRK

KAETHYDKAKTQNAYQQQLFEMNNAKNSYLIAIRVTNKQKEKYYHEYVPEVMDSLQDLNE

FRVMKLNSIWTVASQLEGDMLQQSHGMMGHLTQEITRNLPHLDSMMYMQHNIGGFNEPPD

KVFEPSPVWHDDDSMVVDETAKIYLRNVLSKSKASLGELRREVDKKRREVENVRRLKQRV

REGAEKKDEVEVVRQLFALQEDLHATDHQRLVAEVETSTITSAVGDVTLGAKNHNFKGQT

FKIPTNCDLCGERIWGLSAKGFDCRDCGYTCHSKCEMKVPPDCPGEQSKDERKKLKAQRQ

AAATQLLRPEANASTTSHQSHPSIAELPEMDRSNTMNSLSSHSARRSVSGHLSPADETPQ

ETASRPSISSVKSGTTVKRNRVVAPPPAAYISELPGSGVNGGAEKEEKKGKMMYSFDASG

EGELTVPEGREVTLVEEDDGSGWVKVRINYKEGIVPASYVDFSAPPPAVSIPARPASTYS

NSTTSSAAAAAASSSPLKKKGPAVAPKRGAKKLRYVEALYEYTAQGDTEHSMKEGERFVL

VKDDPGDGWVEVEKAGVTASVPASYVQTV

>SoG\_06138.T1

MKGLYSVVRTYGVDCNQVEHIYNAAKRIGVKVFFGIWDLNAVQKEAQEIVSGIKGDWAIV

DSISVGNELVNNGEASAQQVIAAVKQARSILRAAGYQGPVVAVDTFIATEANPMLCEESD

FCAINAHAYFDSTITADQAGPWLVKTVKSVKSKLSTNKRIIITETGWPTEGAANGLAVPG

LQNQKMALESISKAFAENPGDVILFSAFNDLWKGDRDKYWGIGGAVSRCDR

>SoG\_06141.T1

MRSPTPPEDDADAAPPGGIGHDNTSVPKTKRLACMICRKRKLKCDGLRPSCSTCSRLGHS

CAYDEQRRKSGPKRGYVKALEERLKQVETLLKTQDSTTPSSTPSAHRNPPSGMMGLAAGN

PKATAGAGINVTNSGMGLGTDLDMDGWQMNSDSPQTAKEFNFNSSMPMSLNDVPSDFTWE

MIGLGLEEPLPPQETIDELHQIYFEKVHPSIPMIHKYRYLAAMNLAPAQRPPVCLRYAMW

TLACVITDKFVNLKDLFYQRARKYLETDYMKGFGEHMISVAHCQTHILLSSYETRSMYFP

RAWINTGSAVRLAQMVGLHRLDGSGLEVKQCLPPPKDWTEREERRRTFWMAFCQDRYVSI

GTGWPMIIDEKDILTNLPASDEAFDLSRPEQVGTLAEALAPSGASKLSSFGGIVLMACLF

GRNLTHLHRPDADDLDNDLNGPFWKRHRQMDNILLNTSLCLPSHLKLPDGIGNANVVFMN

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LCFCLYVAARVFVQYLKSRPEDSQAADSLRFLLLAMNTLKKRNPLTESFLVQLDVDFEAL

IARNPKLRAAFTRPGDGPEGLNILSRIVPSGAVCDDPDAVRGILSYRNECNFLKVVGDSG

NLADKPNLVDEPGVDPGANLGNGQWLGADHPVQTLTPSSGTGPAGNGGRYVDRSGDGRDG

TGSPDEGYSNGLTPNSSSATGSNRLQPGRHMTQSGASSFNASPNVQGQDMLNGPGAQFFS

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SMGSLDGMELPAGWQDAATGEMREGSGVGRLWMATASQSIDTSSHSSGARRDPNRHWECQ

ARQLEASPLPQKSRRKCQMAAGPTSPRGQQQQQQQQRGGFGEADGSGQMPGMGQYRVQLD

VTMGGMDEGFVQGPGNRPMRGMQVQHQHQHQHQHQYHQPQHNHGQFGVLAPTPIPPLPVT

PHQQQHTHGGAFHQGDMDNPNGTPMQVESRGGHGGVPEERLVFDPPDLQAWRERLFSVDD

LIVLTNEQYETYWPHVDNVYSHRSTQRYKRKPFISHYWDCRMKGRPSGTPKSDDPNKKKR

KRVARERDLCDVKIKVTEYFPGAQIPADDDGAAAAAAAAAAQAAGFGGEKFWTVQRVNGN

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HAKDADMKLYAACFWYVTIMLSPPPQAHFHPPPFL

>SoG\_06151.T1

MRSFSSIFLIGAALFNLASAAVPGFDISAYQESTDFKKAYANGDRFVIIKATEGTTFKSS

RFSQQYTGATQAGLIRGAYHFARPASSSGSAQATFFVKNGGGWSGDGITLPGALDIEYNP

SGAECYGLSQSAMVSWIEDFVTTYESATGRWPLIYTTLDWWKTCTGNSAAFGNRCPLWIA

RYSSAVGDIPAGWSTYTIWQYNSKYSQGGDSNKFNGNEAGLTRLATGN

>SoG\_06152.T1

MRLIIRSDQKAAAAYTANYILAERPFVLGLPTGGSPTEVYRLMVEEYKAGRISFENVITF

NMDEYIGIPRSHPESYHSYMFNHFFSHVDVRRENIHILDGNAADLEEECAAYEAKIEEVG

GIELFLGGIGPDGHVAFNEPGSSLKSRTRVKTLAMDTIRANARFFGGDVSKVPQMALTVG

VRTVMDAIAVQKVIEGGVNHMWTLSCLQLHPYSMVVVDEDATLELQVKTVKVSHEMKEEE

EEEEKTYTRRYKKEPSSDFVVQYFKSIEMVGLGKGFEQKLPLRLRTSSLISPPQTPNSKS

PPNVFEDMDAAELTPDSMSSRIGSWPVC

>SoG\_06154.T1

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AVTQSGDRISVHMLEYLTTVKSVEPAVDNLAHIFLDTCEVLFALEAGLRECGRSAPSMPE

DVLGELDKKFRVTQSDFQMLDSMLLRLLDYQRKGSMGKMRKGLGKMFGDHSPERVASALE

KTKASLKMGALMFQWSLGEEKISENKGIGFTGLAAALDRLDHGPNAAKPSQPAPESPPRG

QAHYQEPAAHSQSTIHAQTSSLPPGGPVSNGWAVENPQLVPAPLHSWSDRAPSKHESSST

GFSPGFSPTQDAVRQYSMTSASSINSNERNLHGQFDRLSVIDDAHSYVGTVESETVVEEL

TGVEIGKEKAVRVKVDPFTMPRWSARSSTGSDTGSLKSGLISAIRQKNHKMVEQLLDRGV

SPNSGLELPALREAINILDAESVRLLLLFGADPNDIDREGVTPLYAAVQRSFLAGAVNLL

KYGADSSTFNGSEHESPLAAAVVAGRVNLTHLMLIYGGDTNQSLSDGNTLMTACINKKTP

KKLIDLLLEYGADPDAKNRMGQTALFKAIEASRVDIMESLLKHGADANLPGPKHLLWPAT

MYGTACLQLLLNHGADHKKTPGVMELAASINNIDSVRALLKAGVNPNIKKDSVYTPLCSA

IRDNRADIIDLLLKNGADPNTPASEYPAFKCITHKRQHFLPTLVAAGADLNSPKGIVEQA

VASNNREALIWLLDQGVDPNVRNAKGHSALTTAIRENRTEMIDLLLSRGADPNKRGEDWP

VCMAVKNPLVLRKILAVLAEPRAFKGVMEMAVAANQLESVKLLLSAGVSVEDRNGGVFSP

LTTAIREDHRDIVYFLVNEAGADVNAPGEHLPIIKALRRLQGEDTAIIELLLSKGADPNL

VYRGWNAVIQAIQNGDLDVLKLVTAKRVDLNVTDDMGRTVVELASSRGWDEGVAVLMEAG

GRQ

>SoG\_06158.T1

MDHENYSNGYYGRPVMPSAATSMIQTPNRAGTPNTEGSRNPFGEGDTASSRPGLDTNPFA

SPEISRPGSSFDSSSDRALGQRGDGPRYFHSRKIGKGEVEKPWLSKKHPKEKWVTIIPII

GIIIGLGISGFLVWDGYSSVVQNKYCPVMDDDFSGGLNTNIWSKEVEVGGFGNGEFVQTT

GGSENVFVEGGKLIIKATLQDADKIEKDYLMDLRKDGSCTGKTFEACVAATNTTAGNSSI

VPPTKSGRINTKKGATIKYGRVEVTAKLPEGDWLWPAIWMMPKKDTYGDWPASGEIDIME

SRGNNWTYAQGGNNIISSALHWGPNPANDAWWKTNNKRKVIRGSYANGFNTFGLEWSQKY

IFTYVNSRLLQVMYVNFDKPMWKQGGFPETSQNGTRLADVWSQTGRKNTPFDQEFYLILN

LAVGGSNGWFEDGKSGKPWVNDGDNASKDFWDARKTWMETWKQPQLEVSRVVMLQQCNGD

EEL

>SoG\_06159.T1

MLNSRRALVAAAFVLTVFYLISRSHRQPQPFATPQGSLNTNPTTSHIHDLTTPEYSDGPA

GKERPAVQKPMRDTSKMTTYDRLAYAYPYDVDTKFPAYIWQTWKEKPDAPDFKFKDEEAS

WTAAHPGFVHEVITDDVAVTLLTMLYASVPEVLEAYHALPLPVHKADFFRYLILFARGGI

YSDIDTYAIRSAIEWLPEEIPRETVGLVIGIEADPDRPDWAEWYSRRIQFCQWTIQAKPG

HPVLRDIISRITKATLALKKSNQLSSIGQQGVIELTGPAIWTDVIFDYFNDARFFKMDES

KEKIDYKQFTGMETRKRVGDVAVLPITSFSPGVEQMGSKADDDPMAFVKHYFEGTWKPES

LRHIGEKGPEAQPQEGQQAT

>SoG\_06165.T1

MINSPYTLLVDKATNDSLLSKKKDDDGRYPIHWAASANSYDICLLLANQKGFDPDVQDDS

GWTPLMIAASLPDSEALVKLLIQREAYIDQKNNAGQTALHFVASKKNLDVARILLENKPP

ASARVQDRRGQYAIHRAAAVGSVPMLQLLIQNKSPLNATDREGYTPLHHAVAEGQGTDPG

DAAVALLKAGADATIKTPAEEVALDLAPDKEVRNYILQGAEREGIEL

>SoG\_06166.T1

MEISENPQDALRLSALASQNAAASRHLYTAGTTTERSSAKRQKLDDAIEDPMLKRRFRNE

YADVQKLPPSIAAKQPTKGGKKIAKAGAAGASAGAGAVQRVPKLLEAGPGGQAANGDAKN

GETTHSTSLVTRGLPAMKQVKPEWHPPWKLMRVISGHLGWVRALAVEPENKWFASGAGDR

TIKIWDLASGSLRLTLTGHISTVRGLAVSPRHPYLFSCGEDKMVKCWDLETNKVIRHYHG

HLSGVYTLSLHPTLDVLVTGGRDGVARVWDMRTRSNIHVLSGHTQTVSDLVCQEADPQVI

TSSLDSTVRMWDLAAGKTMGVLTHHKKGVRALTTHPNEFTFASGSTGSIKQWKCPEGAFM

QNFEGHNAIINTLSVNQNNVLFSGADNGSMSFWDWKTGYRFQSLDTTAQPGSLDAEAGIM

SSTFDRSGLRLICGEADKTIKIWKQDESASEETHPIQWNPTLARRKF

>SoG\_06187.T1

MGNSNGKPVELDGNVNLNHFRLLRVVGRGAFGKVRIVERKDTGLSFALKYIRKDEVVRSE

SVRNIIRERRMLEHVNHPFICNLRYSFQDIEYMYLVVDLMSGGDLRFHISRKTFTEEAVR

FWIAELGCALRYIHGQNIIHRDVKPDNVLLDADGHVHLTDFNVASDVIAGRTLTSKSGTL

AYLAPEVYAGKGYDVRADWWSLGVLFYECIYNKRPFDGNSENSLGSQIQAASPKYPVTQP

PVSLPCLYAIGAALDPNRDTRMGATWESFIYNDFFKAIDFDLLEKKMIEPIFVPSSDKTN

FDATYDLEELLLEEAPLEARARRQKPRERLKDDATDKQIREDELYRMIESDFRPFDYTIA

AYKKITEASESLRDDPTPADTPGADLPQAVTTDDAVQTSNGIPPPHQGYQPNPPADNRLG

RVPARPAPLPPPPPPPAPPTDYMNVMPQKPNRRITSPTGGVQVTLEAGGSWSDLARQDAT

LPTDANTSADGKAEGSGGMFGFLKSKKGRNNSPKPKERGVLGKEGARVVIG

>SoG\_06188.T1

MAPRESSRPSNRHRHGESSRHKNQHRKRKSQSSRRPVSASEESREGSRSSQALSADALAQ

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RSDGRKRRVVSGAIMEEGRARNGLRGGGLWSEDSLEKDYYNTKAPKKSNKKRLCEFMSEM

GPKGEAPADETTGIIGGIVLVLIIIIIVVAVVVSQKSKGGNNSSSGSDDQSSNLSGLNRD

SVPPKWRNSYLDPWSWESTTDFNVTFTDATVGDLPIMGLFDKWDDSARANENVPPLNEAW

GSYSKRPARGVNLGGWLSIEPFITPSLFNYDLKEGIIDEWTLSNKLGASKSKVIEQHYAS

FITEQTFKDIQAAGLDHVRIPFSYWAVQVYDGEPYLFRTSWRYLLRAIEWARKYGIRVNL

DVHGIPGSQNGWNHSGRFGPIGWFNGTDGDTNAQRSIDIHDRLSKFFAQPRYKNVISHYG

LCNEPRMTFLKTSDVISWNEKVYKLVRSNGVKALVVFGDGFMGLNNWKGLMPGYDDMVLD

VHQYVIFNENQIDFTHQKKVQYACKGWSDQALLSQDPSRGYGGPTIFAEWSQADTDCTKF

LTNVGWGNRWEGTLNTGDPSTSVLKPRCPAKDPSKCSCTKANADPSTWSAEYKQFLKMFA

EAQMHSFEKASGWWYWTWKTESAPQWSYEAGLKAGVMPSKPWERGFDCDKDVPDFAKMGL

DEYY

>SoG\_06192.T1

MFILGPLVTLLPLAGAAKVNTKPSTIGPTVQLRNGTYYGVHNPAYEQDLFLGIPYAQPPL

GDLRFRHPQPLNTSWDEPRNATTYQTSCYNYPYPYGPLIGGKDDCLTLNVVRPAGIKTDA

KLPVALWIHGGGLVSGSNSDPRANLSFIVQESVKMGEPIIAASINYRLHAWGFLWGDALK

EGNLGNNGFRDQRLAMRWVQENIPAFGGDPEKVTIWGQSGGARAVASQLTAFGGRDDHLF

RAAVMQSGTGFPTDFGEVKPPQSVTWEGAYALLLEETGCQKASDSLQCLREVPSDKLAVI

FGQVRFPPFLDIVDGDLVQEARIDLLRAGKFVRVPVLAGTCVDDGDYFTQMGINTTAQWE

EYLASGGAGPATIEAISALYPDIPRLGLPSTYDGRPSGVDAPYGSMWKRALAFGGDRAMQ

APRRAWARIWAEAGLPIYSYRFDQVTADRPAVHGSGHSAELMFVFGNTEGVGFPADGTGD

PFANAPREFTQLSRHMMRRWVSFFNSMDPNSSKDRGSTGGKWPVYDLKKPENLIFHSKVK

GLSHAQPDTFRTEQFEYLNKKLWQVGMEVGS

>SoG\_06202.T1

MAPAEHLSGVALVIGSASGIGRATALSYARYGVRGLVVADINEPGVRRTAEEAERDATNP

DFEVLALFTDVRKYESVENVFDKAVEKFGRIDYSVTTAGVSSTLTLPLARLNTKGDADEV

THSQIWRGQGPLADNPLEQYENIMATNATGVLHHTKAAVRVMRGQEPLVVQGEDRARVIG

RGSIVNTASVLGIAAMPGSVEYNSSKFAAIGITKTAANEHGPQGIRINAICPGPIHTPLL

EQSIAQNPTGRTTMEQWTSFNRVGDPQEVADAILFLTSAAGSYVHGTSMVVDGGSLNNMP

GLDS

>SoG\_06208.T1

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DIILGGHDHYYGHSLINGTHVLRSGTDFKQLSYIEARRKEEGGGGGWDFDIWRRDVTSEI

PEHAETVELVDKLTSKLQHSLAKAIGWTATGLDARFSTVRLKESNIGNFVCDVMRQHYAA

DCTIMAAGTIRGDEVYPPGAITVKTIVNCFPFEDPCILIRVPGRAIWAAIENGVSTYPAQ

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EEVDEEDEHLVDESHQIQFEVLLMRKFGTRWMRKAGVRSECASFGEGEFAVDWTRTIAPI

VEGRIKMVGA

>SoG\_06213.T1

MKLNTVTALLAVAEVASAHYFFENVMLNGSPQSSMKYIRRFTRQTWYNPIKFSSNPSADI

RDGSYIDGPDARCNQGAASNAGSTDVLTVNAGSELRVRLNGAGNFQHPGPGLVYMSRAPN

DNVKAYAGDGDWFKIFQEGVCNNGGDFTNSAWCSHGKNWLAAKIPADTPNGEYLVRFEHI

GVHRSHVRQPEHYVSCVQVKVQNGGSGSPGPMVKFPGAYKDNDPYATMNVYNGIKPFTFP

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TGATCCSSGTCKATNEWYSQCQ

>SoG\_06227.T1

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LPVTAQDSSRRRAQEVDESDPIAQALAELKGVTLSKESSSRMSADHYHGIATPAPGADRP

ASRAGPSSSREPPPSYNQPPPSRLGVPPPAVTAKAMKQASQKVAEQTRSVFGDRARGGSS

GYGNSPNSRSSADIPRAASPAPTRSVSPQPPVADARRMQHRSASPNPRGGYQSRNGSQAS

MNRGSDQGFYRGASPNESSPSSYGQYGRPKSVYGQSAGGDMAVQLAPTGEEGYGSQRGRG

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VLRHQDDGWWEAEVHGGNGRIGLVPSNYLQPC

>SoG\_06256.T1

MSDVEDIVDGELPVIDPYEILELERSATADQVKSAYRKAALKNHPDKVPDDQQDKAKEKF

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VNESTKKRAARANHARNEAAEAEDYAKELGVADKLFGKGSAKKNGKQSGKDSSEDALAAL

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SRK

>SoG\_06262.T1

MIHKSTHTYTNHGMPLKCDVYTGDAFPQDTPVFLYFHPGGLVAWNRWPLVSASYRFLPQV

GAEGMLEDAKAAFGFAQQLETASCGIKRKVIAGGGSAGFFLASLIAYHEAEAPIALFSRS

GIPSFHHRFFNSSTQLTPEPIPYTDVAAHLTGPAFYEEPGHGGSMAFDVNMLNSDGTKDT

GYIALPPVPVVETEEIGTSQDGSGIETQPVDRGMLYDYYLYNNSFLELVGSIDPGSSWDR

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>SoG\_06275.T1

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AEAQEEVESAGEEAPAKEEKKSKKSKKSKEEKKAKKDKKNKENGAAKADEHQPLAPGVAD

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AARGLDIPEVKLVINVTFPLTIEDYVHRIGRTGRAGKTGEAITFFTIQDKAHSGSLINIL

RGANQPVPEDLMKFGTTVKKKAHDMYGSFFKDVDMNQKATKITFD

>SoG\_06277.T1

MAPAVGIDLGTTYSCVGIFREDRCDIIANDQGNRTTPSFVAFTDTERLIGDAAKNQVAMN

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VLTKMRETAEAYLGGTVNNAVVTVPAYFNDSQRQATKDAGLIAGLNVLRIINEPTAAAIA

YGLDKKVEGERNVLIFDLGGGTFDVSLLTIEEGIFEVKSTAGDTHLGGEDFDNRLVNHFV

NEFKRKNKKDLSTNARALRRLRTACERAKRTLSSSAQTTIEIDSLFEGIDFYTSITRARF

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LESYAYSLRNTLSDPKVEEKIEAADKETLKAEIDKVVAWLDDSQSASKEEYEEHQKELEA

VANPIMMKFYGSGEGGMPGGMPGAGGPGGFPGAGGPAGGHGGDDGPTVEEVD

>SoG\_06282.T1

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LKALKPYLDRLNIEYHYSYSQINPKKGNRIEKLAQLRNLAVKPLLDAEDGGVSTDTTVLF

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PPEVVKCIEGWGNQFWKPWELWSVWILFVQHSSVSFESRTEAVKPWWLHQDLRMTRPVKK

RPFCGA

>SoG\_06303.T1

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IVSILVITCGVMLASIGELDFSWLGTAIHLGGLGCEALRVVMIQALLTNEGHSIGPLMSL

YYYAPACALFNFLLATVTELPKITLADIGKVGWPLLLLNGAIAFLVNISSITLIGRISAL

LLNLTGIAKNILLIGLSVVIWGTEISNLQIFAYFITLIAITWSWGGYSKVNTSSYGHA

>SoG\_06304.T1

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QTKAVLLGDDDTYYTAEDLEFAFQVWRETGRNRLVGAWPRAGRANEAGEMHYDIPRTSWD

YNMILTGLSFVHIAFLEYYWSDDQRMTNVRALVDELFNCEDIALNYLTQHVTGCPPLWVK

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>SoG\_06311.T1

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DSVGDPALDLIDSMLVVDAEKRFTIEQCLEHPWLTQTSPGVNDSTGGLVSGVAGLEMNRR

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>SoG\_06315.T1

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>SoG\_06322.T1

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DLEGADPGDV

>SoG\_06331.T1

MNTLGKDFQGNQLQPGTRSYARANDIYSSSTYNTSSSDRQPYMNPGMIYQPSDVEDIKSI

VKAAASAGIHVAVRSGGHQYSGASSTDSKGIQLDLKPTFRRPNVDLNILREGGKVYLRSS

VSWTLAEMFDFLQDNGVFMPTGQCSTVCLGGHVQTGGYGMLARSFGLLGDYVRELEVVNY

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>SoG\_06332.T1

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LAQSIYYEESPPASDPAVTNPSLVMQGITEGQIRAMRKNGGNPLGIQDGPPLYLFHIGSW

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>SoG\_06333.T1

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RDVHAIFSATSIARGAPAMAYPVIAGAGKNASTLHYIDNNADLAGNDVMVVDAGCEYKGY

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GILKGNRDKVRNQGTVSAFFPHGLGHHVGLEVHDVSGDLPLMSIDEKRTMGIGAKRQMMS

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>SoG\_06345.T1

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ADEISNIELCSKILAALNIPHSTPEEFRRWVKYTHDRPFNDCRYAVDDTKIRDLGWEQRT

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>SoG\_06346.T1

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FACVLTGIWPRGKDETATSRAVTSWVYETAYKLLPRCVGVYSADLGPDPRDYELAGKAFG

RNLQRLIHVKKTLDPHDVLRYGCPLKPPPSHPGLIILVTGESCSGKDHSANSWAAALRER

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>SoG\_06347.T1

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VFTWYSATPIHEYNGDLMPLMEILLANTDAKYPKSTDYIGYMSLGSEALSANQSVTFHVP

KLSIDVKTS

>SoG\_06352.T1

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QEILGAFDKQAQTNYFFDGRPLYDKYADTYDLDFSPATDFHTYSVEWSDKLLTFSIDGKE

LKTWRNGDIPGKEWPQLPMQVKIGVWAVTEESQTGEIEWAGGLPDWEHDAPFVAYYRKLK

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SGSPTTEPFESWTSGTARPSDKDSRPEEDIAGSVREENLLLMMLLLAFAL

>SoG\_06356.T1

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>SoG\_06360.T1

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GLRNPVKIEVKVKMKGGGVLEDRRTPASLQMSYLVKPASQKLPALAKLLENLSVRPQRSI

VFLSACASVDYFQHVLPLLLPPGFSLVPLHGKHPAKVREKNFNKFLTSVSPTILLTTDLA

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TPIKPLERPEVITTEEDADAAAEKIRELVKTDRALYDKAQKGFVSWARSYGAHQATSIFR

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>SoG\_06377.T1

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IYFDKVIFLNDVVFKVEDVMLLMDTHGGQYAAACSLDFAKPPNYYDTFALRDSEGQSHIM

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>SoG\_06378.T1

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VHFTVLNRSGPGDDFMSPEFQETLSDNVMLANAININYMDTITIRHKETKAYLHSHNERY

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>SoG\_06383.T1

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>SoG\_06385.T1

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>SoG\_06400.T1

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SGADLWEWNGQLYVIYHASSGKIYARTIDSTLRKVGILPILLHKSSGVGNDTGRCAAPQV

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>SoG\_06409.T1

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>SoG\_06412.T1

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>SoG\_06415.T1

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>SoG\_06439.T1

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>SoG\_06457.T1

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>SoG\_06475.T1

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>SoG\_06479.T1

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>SoG\_06480.T1

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>SoG\_06484.T1

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>SoG\_06492.T1

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>SoG\_06503.T1

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>SoG\_06506.T1

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>SoG\_06507.T1

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>SoG\_06515.T1

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>SoG\_06525.T1

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>SoG\_06529.T1

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>SoG\_06538.T1

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>SoG\_06545.T1

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>SoG\_06558.T1

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>SoG\_06606.T1

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>SoG\_06612.T1

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>SoG\_06622.T1

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>SoG\_06644.T1

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>SoG\_06652.T1

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>SoG\_06655.T1

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>SoG\_06662.T1

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>SoG\_06679.T1

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>SoG\_06683.T1

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>SoG\_06684.T1

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>SoG\_06689.T1

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>SoG\_06697.T1

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>SoG\_06699.T1

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>SoG\_06705.T1

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>SoG\_06722.T1

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>SoG\_06736.T1

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>SoG\_06743.T1

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>SoG\_06746.T1

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>SoG\_06758.T1

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>SoG\_06769.T1

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>SoG\_06770.T1

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>SoG\_06773.T1

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>SoG\_06774.T1

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>SoG\_06776.T1

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>SoG\_06783.T1

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>SoG\_06792.T1

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>SoG\_06799.T1

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>SoG\_06813.T1

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>SoG\_06836.T1

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>SoG\_06838.T1

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>SoG\_06845.T1

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>SoG\_06846.T1

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>SoG\_06854.T1

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DTIMVG

>SoG\_06918.T1

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>SoG\_06940.T1

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>SoG\_06945.T1

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>SoG\_06965.T1

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>SoG\_06976.T1

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>SoG\_06982.T1

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>SoG\_07011.T1

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>SoG\_07023.T1

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>SoG\_07024.T1

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>SoG\_07027.T1

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>SoG\_07042.T1

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>SoG\_07064.T1

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>SoG\_07070.T1

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>SoG\_07074.T1

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>SoG\_07078.T1

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>SoG\_07104.T1

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>SoG\_07107.T1

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>SoG\_07113.T1

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>SoG\_07127.T1

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LAEIYDRILDTSRERLIFSMLCIIFGRTAVGLIPWKMNDEFNYLTGSLDAICRTMIDEKK

VEIAEKGDDHFDVLSLIMKDGTFTDEALKDQLLTFLAAGHETTASAFTWACYLLTKHPEV

QEKLRAEIKENLPEDVRNMPAAELASLLEQLPLLNGVMQETFRVYPTVPLTMRQALRDTQ

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DVKAQ

>SoG\_07135.T1

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PARAWGMENTTDEERAAKILDAGCDQFGGENRFKLIVDLVRSGRVSEERVDVSVRKLLKE

KFLLGLFDNPFVDPDAANAVVGNPYFMRVGEVAQRRSFTLLTNNEDRLPMRNLAAKTKIY

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>SoG\_07142.T1

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>SoG\_07144.T1

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>SoG\_07149.T1

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>SoG\_07154.T1

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>SoG\_07156.T1

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>SoG\_07161.T1

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>SoG\_07182.T1

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SLRVEGHKWDNPVKVFFETELTDDVWHNFGIDLDFTNNTDQDALKVVAPPTYNNISGKAP

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>SoG\_07214.T1

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>SoG\_07231.T1

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>SoG\_07239.T1

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>SoG\_07254.T1

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>SoG\_07258.T1

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>SoG\_07264.T1

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>SoG\_07280.T1

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>SoG\_07287.T1

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>SoG\_07302.T1

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>SoG\_07308.T1

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>SoG\_07310.T1

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>SoG\_07323.T1

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FSNIKFGPVGSTFSA

>SoG\_07325.T1

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>SoG\_07326.T1

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>SoG\_07331.T1

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>SoG\_07336.T1

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>SoG\_07367.T1

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VALLFF

>SoG\_07374.T1

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>SoG\_07376.T1

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>SoG\_07387.T1

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>SoG\_07408.T1

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>SoG\_07415.T1

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>SoG\_07417.T1

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>SoG\_07430.T1

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>SoG\_07434.T1

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>SoG\_07435.T1

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>SoG\_07439.T1

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>SoG\_07441.T1

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>SoG\_07445.T1

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>SoG\_07451.T1

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>SoG\_07463.T1

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>SoG\_07472.T1

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>SoG\_07475.T1

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>SoG\_07502.T1

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>SoG\_07524.T1

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>SoG\_07533.T1

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>SoG\_07551.T1

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>SoG\_07570.T1

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>SoG\_07572.T1

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>SoG\_07609.T1

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>SoG\_07610.T1

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>SoG\_07615.T1

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>SoG\_07620.T1

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>SoG\_07621.T1

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>SoG\_07625.T1

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>SoG\_07626.T1

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>SoG\_07627.T1

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>SoG\_07658.T1

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>SoG\_07674.T1

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>SoG\_07676.T1

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>SoG\_07698.T1

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>SoG\_07712.T1

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>SoG\_07736.T1

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>SoG\_07739.T1

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>SoG\_07743.T1

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>SoG\_07745.T1

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>SoG\_07780.T1

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>SoG\_07781.T1

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>SoG\_07783.T1

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>SoG\_07915.T1

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>SoG\_07918.T1

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>SoG\_07929.T1

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>SoG\_07933.T1

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>SoG\_07937.T1

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>SoG\_07940.T1

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>SoG\_07952.T1

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GRAH

>SoG\_07966.T1

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>SoG\_07967.T1

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>SoG\_07972.T1

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>SoG\_07981.T1

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>SoG\_07985.T1

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>SoG\_07990.T1

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>SoG\_08003.T1

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>SoG\_08028.T1

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>SoG\_08030.T1

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PKE

>SoG\_08032.T1

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>SoG\_08036.T1

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>SoG\_08042.T1

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>SoG\_08053.T1

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>SoG\_08055.T1

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>SoG\_08056.T1

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>SoG\_08057.T1

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MRNLKVDNCEVVWTVSLKLRSATPWADAGHELAWSQCTEGYPSLTGEQTLSVLGIQASQL

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SGAIKVRAKGVPEGPLPPDIPRIGLNLRASQDLDQAQWFGRGPGESYPDKKASQRIGVFS

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>SoG\_08059.T1

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FERLERNEYLPRSIIGHGYNGWLTTSLTNLGLIVPDPKFLQIILAAGAALGQGITGIINT

AAGLGQVLFQDMNSGYQGGDRRQGLFQIPLAINDGTRSGPRDFILQVMNAKTSDGQSKYH

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QSH

>SoG\_08060.T1

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>SoG\_08072.T1

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>SoG\_08077.T1

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>SoG\_08084.T1

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>SoG\_08097.T1

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NAVAIRQMTNWGSRFGLSRLAEGGIRNMTGKGEKDKLSPWEKVLASTIGGGLSAWNQPIE

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MAKTYVERLTGETVTAKH

>SoG\_08103.T1

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>SoG\_08134.T1

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CIVLISPCLDISLSHPDLQDRERDDPWLSPKGMIPLTSHLAGELPLTDPRNSPLFGDIES

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>SoG\_08139.T1

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>SoG\_08140.T1

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>SoG\_08148.T1

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LGKKGIKGFYESQACYVPVSDYATGPSSAPKQIRGGEPKGAWENVRFSPDGEKIAMLFHD

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GS

>SoG\_08156.T1

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DKDCCDKNPPVHQCGGGSWWDDGKKACVCSEGYKYNKKDDCCDKIPIPQCGGGSWWDAGK

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>SoG\_08158.T1

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>SoG\_08162.T1

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>SoG\_08172.T1

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KGPETKATS

>SoG\_08190.T1

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>SoG\_08209.T1

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ISVIAIMNDLNRQKAEGRGFQISELFENKVFYTLIISVMSTFGIWLIASLIMFDPWHMVT

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>SoG\_08219.T1

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>SoG\_08230.T1

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>SoG\_08245.T1

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LEKNGPKAKL

>SoG\_08256.T1

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>SoG\_08257.T1

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>SoG\_08265.T1

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>SoG\_08268.T1

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VIKEYAASVRTFVQDWASVAGGIDGFDVDYEDNNLVPFIGDVFAQVRRELTALSASTGRQ

YWVTVSPSEVDYLGSAVSSLSYVNMQTYAGGIHLKVQDFLDLGYRRDQLLYGVCPESNCK

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>SoG\_08269.T1

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PDDLPADDMTDLNPLESTPAAVAGLDRIVDSKVVQVAACDNATFVLAASGNVYGWGTFFG

NDGAFGFSRSKNSKTASSKDALFQQIPVQVPGLKNVRELAAGVNHVLALTRDGNVYSWGS

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>SoG\_08275.T1

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GGGFSSSLNSAAKSMVDNNVFLAVAAGNANSNAANTSPASEPSACTVGASTSSDARASFS

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>SoG\_08279.T1

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EVAHPDDGTEAAKIRMENEEKARHAHYIG

>SoG\_08284.T1

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SEYHRNVRQVGAGFLEMMIQAAGKAGDPLYAKC

>SoG\_08286.T1

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PARWEDAVRLPYLDACMKESLRLCPGIGLMLEREVPESGLTLPDGRFVPGGTVVGLNPAV

VTRDEGRFGGRVDEFLPERWLPRDGEDGEEFARRNRRMQEVVDFTFGAGGRICMGRHLAK

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>SoG\_08305.T1

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PYEL

>SoG\_08309.T1

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GINSEADMRYALKNVFPPQAAQNTGKTIDGLVDEVMYLYPNIQRIGIPNLKMWPHIIQPG

DQYANTLGLQFRRGAAFFGDLWMHYNRRRANVAWSRLGLRSYSYRFDVQVNGNTLIGSTH

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>SoG\_08313.T1

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>SoG\_08322.T1

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KVPGIGA

>SoG\_08342.T1

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>SoG\_08344.T1

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RDPITYPRMVYATTDDFVTFSEPVLWQDAPPHGRIDSTVIEEDGVFYRFTKATIDDCADI

VQESSTSLTAPLQDWNRIASCIGTNAGTSAVEGPCIFKTNPGDVNGERFILLADEFTGQG

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>SoG\_08348.T1

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>SoG\_08366.T1

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>SoG\_08367.T1

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CY

>SoG\_08372.T1

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EKMTPEVRDALLKLEPVQERTFDEVFARKRGFLGNGRQERWQINSIMNDPEVPLQTLLEA

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DKINRLNMKKSKI

>SoG\_08373.T1

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SETPAITDDNFDPAHAKARAAEIEVVALIARRRKFRTTEEGESGKDKGHAHDVSDVEPLF

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SEYGKESG

>SoG\_08383.T1

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IFYTPSGGIWQNVWLEVVPAARIADSSGGTVIRSNDIESGQLLCKVAVAGRRAAQKLGVQ

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A

>SoG\_08390.T1

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ALYRLL

>SoG\_08407.T1

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>SoG\_08412.T1

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>SoG\_08413.T1

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>SoG\_08417.T1

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DGVARIADFGKDNYAGQ

>SoG\_08419.T1

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>SoG\_08423.T1

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>SoG\_08426.T1

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LARLLSD

>SoG\_08449.T1

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>SoG\_08455.T1

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>SoG\_08460.T1

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GLVAWIAV

>SoG\_08461.T1

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>SoG\_08466.T1

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ML

>SoG\_08486.T1

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>SoG\_08493.T1

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>SoG\_08516.T1

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>SoG\_08523.T1

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>SoG\_08540.T1

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>SoG\_08562.T1

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>SoG\_08565.T1

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TI

>SoG\_08566.T1

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>SoG\_08572.T1

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CLVFSKLE

>SoG\_08581.T1

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>SoG\_08588.T1

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>SoG\_08603.T1

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>SoG\_08608.T1

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>SoG\_08610.T1

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>SoG\_08638.T1

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>SoG\_08641.T1

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>SoG\_08649.T1

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>SoG\_08650.T1

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>SoG\_08654.T1

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>SoG\_08655.T1

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>SoG\_08670.T1

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>SoG\_08671.T1

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>SoG\_08676.T1

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>SoG\_08688.T1

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>SoG\_08691.T1

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>SoG\_08692.T1

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>SoG\_08708.T1

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>SoG\_08727.T1

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FGTSSYFSSL

>SoG\_08740.T1

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>SoG\_08747.T1

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>SoG\_08756.T1

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>SoG\_08758.T1

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>SoG\_08768.T1

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>SoG\_08782.T1

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>SoG\_08784.T1

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>SoG\_08801.T1

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>SoG\_08808.T1

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>SoG\_08830.T1

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>SoG\_08843.T1

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>SoG\_08861.T1

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>SoG\_08879.T1

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>SoG\_08892.T1

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>SoG\_08896.T1

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>SoG\_08901.T1

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>SoG\_08908.T1

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>SoG\_08912.T1

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>SoG\_08916.T1

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>SoG\_08920.T1

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>SoG\_08921.T1

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>SoG\_08935.T1

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>SoG\_08940.T1

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>SoG\_08941.T1

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>SoG\_08955.T1

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>SoG\_08956.T1

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S

>SoG\_08959.T1

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>SoG\_08963.T1

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S

>SoG\_08983.T1

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>SoG\_08985.T1

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>SoG\_09004.T1

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KLVETYTNYSQPLFFSEYGCIKPKRDFTDTKALYQTDMTSVVSGGFVYEYSQEGNGYGLV

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>SoG\_09011.T1

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>SoG\_09015.T1

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>SoG\_09017.T1

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>SoG\_09024.T1

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>SoG\_09025.T1

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>SoG\_09026.T1

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>SoG\_09032.T1

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>SoG\_09040.T1

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TPIT

>SoG\_09046.T1

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>SoG\_09048.T1

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>SoG\_09050.T1

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AVARGPVKAKAKM

>SoG\_09068.T1

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HQPAPEMWCNGPRIHEFIHEMNRKVLAPYNAVSVGELSLTPLPSQVVPYVSASAQELDMV

FEFSLIRLGNGDGFGSKYIYQPFALSTLKRMTETWQTFLEGTDAWATVFCENHDNGRAVS

RFGNTTTPEMWLRSAKAIALWQTALTGTLFLYQGQEIGMTNVPGSWDIAEYKDVESRNFY

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VAAQAQDPDSVLSFYKKALEMRKDHKDIFIYGRFKLLDPTNEHVFAFVKQTAQESGPKAL

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>SoG\_09069.T1

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TSVAARKANLYFSTDVAKHISEADIVLVAVNTPTKDRGVGAGSATDMTAFEAVTSVVAQH

AREGAIIVEKSTVPCRTAQLVADTLSMHRPGVHFEILSNPEFLAAGTAVNDLLYPDRILI

GSAPTENGKKAAEALLEVYAAWVPRDRILTTNVWSSELAKLVANSMLAQRISSINSISAV

CEQTGADVDEVARAVGVDPRIGNKFLMAGIGFGGSCFKKDVLNLVYLADTMGLPEVGEYW

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RFNVEPDCPSDCPDCEQERDSKSTGHATGMGSGEEYKTKERVDWVRISQSMAPPRWVFDG

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>SoG\_09071.T1

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AENLGVTRKTETEALRADPNTNLLARKTSIPLVRCEIARPAGNLEGGARGFGEVSLGTGV

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>SoG\_09074.T1

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KVEEPRPAPSDNYHPSEAAHHTQHHAAPTAQLPPMQSAPSEKPAASTPKEERPAAPPAPE

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STSANGAPAATTKTE

>SoG\_09088.T1

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>SoG\_09099.T1

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>SoG\_09117.T1

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>SoG\_09123.T1

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>SoG\_09124.T1

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>SoG\_09132.T1

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>SoG\_09144.T1

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>SoG\_09166.T1

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FGALTQYRRRIRRPHSDHKRLPIIFNDYMNCLMGDPTEEKILALVGPVAASGAEYFVIDA

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KLEAHLKT

>SoG\_09208.T1

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PSSPFPNGLEDLVSLYLAALGDSTLPIDKADGGRIAICGFSAGGNFTLSLSQRLMKSENC

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GQDIRDPLVSPGPYAAVDDLPPNVFIIASELDMLANDSRECAYRLAQAWGSSRRIDPADQ

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>SoG\_09215.T1

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KQIDHVRHERAILAQVAGHPFITNLLASFSDHDSLYMLLDYVPGGELFSYLRKLRRFDER

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ETYTLCGTPEYLAPEVIHNKGHTTAVDWWALGILLYEFLTGYPPFWHQNPMEIYKQIVEK

PVVFPTEPPLSEDAKDIIRSFCTIDRSRRLGNISGGAERVKSHPFFRGVNWDDVLHRRRR

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NVSTVSSSKMPPPRGFPNFIEGPDVHNDTYPAIDSSSADLTGRAVYISGASRGIGVGIAT

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SRFGRLDVVVNNAGTMTGYTRTVAEMTEEEWKTNFEVNLHGPWRVMKHFLPLLLETEKAG

GLKTIVTVASVGAHLVTPGLSGYQTSKFAVLRLTEFAMAEYADKGLLTYCVHPGNIDTGL

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KVRLVV

>SoG\_09219.T1

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MDVICDYSFANDRKYLDEPDFKLLWKQTIIGAFEGGAMGRQFPWMLPLMKKLPRSMVSAM

DASVGHLLNWQDGVKVQVQPIIDGTDELSRKGDTSRTIFHTLRDSDLPAHEKSLQRLCDE

GEILTGAGSETTAQTLTRIMFYVSQVPEVLTKLRAELDQIMSEQDSIPDIAELQALPYLS

AVIKEGLRLSYGVTTRLPRVCHEDIVYRDLVIPAGTPVSQTPYFILMHPDIFPEPKRFRP

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>SoG\_09221.T1

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RCKGDGMVEVLRQFGPGMMGREVVVCDHCQGAGSVFKEKDRCKRCKGKRTVQEKKALEIY

IPRGSMQGERIVLEGEADQVPDQIPGDIVFTLVEEPHDTFTRIGQDLSTELKITLAEALM

GFSRTVLTHLDGRGIAIDRPRGKILRPGDCIRVPGEGMPMKRGEAKGDLYFLVDIEFPED

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>SoG\_09225.T1

MVRLSVVAALGLCNLVAADRSFKNLVVFGDSYSDEQNLGYLINHHGQWPPPGTVLGAVNM

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SLGTQAYSDINADNTVYGVWIGTNDFGNGAFLTDQQQPGKTITDYINCIWEVYDRLYAKG

ARRFVLLNLSPLEKLPQYDASQGLDTIYFPDHTTHNMTLLEIKMKQYTTTTNTAFDYGVP

FQVLTRDRWPGAVFSIFNVHQLLLDIYNNPGEYLDAPANSKGVYRRCIPGAGSNDCTDSQ

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>SoG\_09227.T1

MGSAATNSGRLAGKNAVITGAAGGIGLETSILFAKEGANVLMSDISEPALEKALAKVKQL

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>SoG\_09231.T1

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>SoG\_09244.T1

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EKARKG

>SoG\_09251.T1

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>SoG\_09257.T1

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PGKLGSEQLQLKPDASDLEAAPAFREGIFDIRNYTIKEPFRKRYPELTRAAETTGVLRPE

NTEMMLGYTPANDLGCGEVDQDNATALAEDEDYNDTSTITFTLGDENRQSLNPLLDASAS

SWADFPLQYPEFSDSTFADNGPAPYLLWTE

>SoG\_09276.T1

MVTLRSPFRSLGTSISVTSFFLILILVLATVAEAQECSKSTPYCHKDICVNNCDSRAQCD

PGGFGKDYVEQSKCALNVCCSKYGFCGFTEEFCGDKKVKPPSCSGHSLQRVVGYYEGWAA

NRLCNAFVPEQIPVGVYSHLNFAFASIDPKTFEIRPASYADTKLYRRLTSLKRIDPDLKV

LIAIGGWTFNDPGPTSSTFSDIARSESAQKSFIKSLISFMSTYDFDGVDLDWEYPGAEDR

SGRGEDFENFPKFLANLKSALKATGGRDEVTLTLPASFWYLQHFDIVKLEKHVDFFNIMS

YDLHGTWDQGNKWVGPYLNAHTNLTEIKEAMNLLWRNHIDPSKVVLGTAFYGRAFTATSS

SCLGPGCTYMSGAPRQPCSNEVSVMIQSEIVDVMKRTGNKPVLNRAAAVKILTFDNKQWV

AFDDEETLMMRADFAREQCLGGLMVWAVSQDVQDAKYSRALGDAAGRKFKSIISNGLVMP

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CKWYNNIGPGNEDERYCRSGCPDDRVRVAKDSVYNLERKGVPQSGCSRGARARCCIPQKS

VDITRDRSRDDIMREALEGFLKDPTCSPGIGVSPFGMASQLMMQSTAKGTNETQAISSLG

RREIVAAKSHLHNHHGRRRTHHHHYRHQQADKSRDTTTPSSASQSHHHLLHRAAQAQLEK

RQSSFFNDEKEVSTLVYKLLLGIATAYQLEIWNSVVPKRYKNLKWENLEDWIIEEEALDS

YGDSQLIKLITCHMADVNDWVGGSKQESCMCDTQACCPLGGDYCDMNDAFGPDAGSGVTR

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TFARFFTTAMGGVKESGQPYRTRRINPRIVRETLNQNFPGVFPPMAGNMPSGRPIQRLFN

ALGSRANTGVFVFAQSGINYAKSAMWQQDSSVIIDQRESLSDRAMDAALAEDHDFERFVR

ALESVIVAMNYLREPPVWRNLLSINSEVRRELHNLEEAHVARGLSREPLVEAWDEFIRDL

LEETIRYARDWLRRWWLAAEARYGRQTSEWADVADAQYASVAVENEAVQPPEHIATHETT

TGFTRKWLLARSSRLWEFLDDKQAQAHGQRGCEKASKQWPTSANPGCSDDSEALEDARTL

DAVDRVTSVLECRLDRAKTAICNAQSIPAVIYCEIIVSKLECVFRKPSSSRAWQAGAS

>SoG\_09277.T1

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DGSRCGEKCKTSTIAPAVVYFPPGKYLVSSSIIQYYNTQFLGDPLQVPTIIAASSFVGLG

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PAMNRTKELTGNAYNKMKPNLFTRRRPKYYKVASTKVMNVRALGAKGDGQTDDTAVLNSI

LSGAANTSSIVYFPFGVYIVKDTLRVPMGSRIIGQAWSQIMGTGPNFATESDPQPVVQVG

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DLWIYNLCTKAIIEMVSPLGGVATFAKDNMNGFLSSVLAWLEGSKVESGRRDFYGFQVYT

LDNLRNLVLPQTCKTALSARVICDPWVQRFQEFAYRGSLGNTTLTDSVCDEGCRESLESW

YKRVQSSCKGYNITDALPTMYGGLMLGGVKETCLKDSGTGKYCNDVIANFKTVDSVKAMP

KSEMCSYCYLARLKQMQASPHSVYNEDYKETLEFVLQTCGSSGSTRVQPSIRSQPNLTST

MCVSDTFHTIGKPGATCQKVSTRYKASPAALYAANDNVYTCDDLPVGTKVCVPLSCGKLI

SYGQNDTCLGLEAQHELGFGDIQRFNPWINYECSNLVSGLDLFGDELCAGPQGGQHNFTG

PGPIGDTTTPQHGNGYTAAPISPPKGASLATGTTEKCGKWQVAKEGDTCVGLCLAGEINI

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>SoG\_09283.T1

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SEKNDYSNSFPPVYQACFPGLVAGGGPAVQCVDLTATPKPLLRLDTDYRLADPACFNFTG

FSVADIRALGNFPDYAKLSGVPLPAPLPDFDVDKALPRPYRPFRWSYHQTMSLSKMDTDF

WIELESTYRERIAQRQKLFRENGRHVLESLPGSELACKELMEMVVQFIVARYPKQFSLDG

CVLTNHILNTRTDLSAAAPLEALLDHVPEDFGIMLRDPETGRYLLRAGVICSSVGWKLSE

KMGLGLAGIHKVVPDYKEKMEFSMDRFFTKMPTDKPIQRGSWGFEVGEPLFIPAEHPDFA

HRSSQDPSLTDKDVCLRVDWQTLRRLPLSGAVVFNFKALFTRLTEFRDEPCVPSLALKVL

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VHGMFC

>SoG\_09313.T1

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IVTYIDSHASEMKGGGYEVFLLMENCDGGGLIDFMNTRLQHRLTEPEILAIFTDIAEGLA

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RPVSTSLEGSSLDYLREKEMSRPLSRTSPNPIWSPPVQQSPSMSPLPRGEPVKENSDLEY

LRSYEEREAKHEQLEIKGNRKSFESFTETKPKIIGKFSDAFKRFENNNSGTTARTPSPLK

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KVEKPAPMVPRKPVLGAKPRMDIPPQRKEFVPSIASSDPTRTNPTSNANTAYSAKPTSSR

PAAPKKPVHLNSLPTGSQPPPQKALRPVHPAQPEEQLIALDIPGQPSLDMSVAERDNYLE

DFSKRFPSLSSIEMVETDIGRDGPGRN

>SoG\_09314.T1

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GTPESMRHFDFMGDLQIAMAHGSNGLENYERWLDVGEAAAGVFYEVNGVAYQREYIASNP

DDVIAVRIAASKAGAASFRVHLRRGTSLNRFQDYGQKVGSDTVVMGGASGGVDGITFAAG

AKVVASGGTVKTIGDRVIVENADAATIYFTAWTSFRTSNPRRTVLEDLERASKKDYNEVR

NDHVKDYQSLAGRVELSLGKSSDEQKARTTMERMKKLTDAFDPELAVLYYQFGRYLFIST

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KVLQELYPAMHDAAQFYLDFMTEYKGYMVTNPSSSPEHAYFVANSTEQVAITLGPTCDNS

IIWELFGIVLEAHYVLGIEDKEFENRLIEVRRKLPPLRVNSHGGIMEWIEDYREVEPGHR

HYSQLFGLYPGNQISSANKTFFDAAAASLNRRLSNGGGDTGWSRAWTISLAARLFNTTEV

GESLTHLLTKLTYPTSLVDTGPPSAFQLDGNYGGTAGISEALIQSHEMVSSKDVGKVHFV

GDRAETMFVLRLLPALPKEWAENGGGYAKGLRARGGFEVDIEWDETGRLTGGLLKSLLGN

TVYLVVGGGELGDVPGAEVKKLAVEGAQSTGRLDTKQGGSYRISA

>SoG\_09335.T1

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WVQTNIAKFGGDPDHVVIGGNSAGAASVSMHLMAGNGTDRHLFRGALAGSPSYATMYTAQ

QSQYQYNQLVTRLGCVGTSSLDCLRAKSAEDIQEVNTNIPLLMASEPPLYQWLPTIDGDF

MSDYAYRSFARGEFIKVPTIWGDDTNGGTIFVPKSTSTLAESNQFLLNQYPTLSPEQLGE

INALYPNPNNSCPAVGCFWRQASNVYQEARYTCPALFMNSVLAPYDKSYAYLWNVEDPEQ

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>SoG\_09337.T1

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QLDMRGDPDSCGVWAPCLTHDGEKFWLVYTDVKRKDGSFKDAHNYIVSAPEIEGPWSDPV

YANSSGFDPSLFHDDDGRKWFVNMLWDHRRRPLLFAGIALQEFDPQAGKLVGPRKNVFQG

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PVPSLNVEVPGTRDDSAYWSEQRYTFENGLHKDLQWLRTPETDRIFTFENDCLVLHGREA

VGSWFEQALVARRQTHFSYDAETVISYSPTDERQYAGLTAYYCRFNFYYLTVTAHSDGQR

ELLIMSAPASWPLGGLAQPFVEPVKIPNEGKVRLALKIRGGRKLQFYYALEGEELKEVGP

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>SoG\_09339.T1

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VNDYNTSDIICHVNATNSLGYASVKGGDKISWYWAGWPESHKGPVLTSMARCGTDGKSCA

EQDMTSLEFFQVGQAGLLDPNRRATSHSVAMGYWATDLLIERNYTWLVEVPDVIEPGFYI

MRHELVALHYAKIPGMGPQHYPQCVTLEVSSSGSARPAGIPVTEFYKAEDPGIDYNIFVD

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>SoG\_09343.T1

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EDFFDQIYHDLEPLWGLDPAFIRREADGFEMTIHVRNGKADTKSDWFWTLIWLDLIRSIE

KDLPDMDLAMNPMDEPRIIVPWEEMNSHMKKISKPSRLPSAKSVQNSYRKLPEPGKGDLH

LPLVGQKWDNTKPFWKLVKQGCPPDSLARTTPDEDPKAFAERPIITTENTIPHTFEGYIS

NMTLSKDVCHQPDLQGSQGILIDPLSVSTHKSLFALFGGSKLSVNNEILIPAPIYWSDEE

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RAENFCFPEDKYKVSAHAEGRLGEWISEWTDTAFMDLMCEPREEGSICRYTSPHFKLEPT

ITMPEQFEHKYLPDVDGNSFSGRFLGFMRSSALPIKSTLWREWHDSRIVPWKHFIPMDTR

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ERREAMGWVEDLKDDLL

>SoG\_09355.T1

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PKPGTLRTARSWGPAPPAEQPGLGVISGGTLADREAALKAARTASVLESHDGVNGGLDVT

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QTRKWLVIPVDACELRGRPCDPPAWHNGRNVDLLAPTPNAEDDGNGKQPAHTDFFNRPAN

GSSADAVKPEEDEYPWTHVRWVKVDSIQQPIEIARVSRQAIGYFPPRRRKSIRTYSTLST

PRQSLDLSSNPPGSVEGPSSRRESSLGSRPQLSTTPVSTRSRMNSVGADTRPMWMRRPGG

VGSLSKTVRAPGPEKDYFNTFAQKHMPGLNIEGPSMSIMGSETAHFGFGQDSTALVESPF

EDGRDAASSSRQGTGLDKAAAAVEMWLRGALSKRPSTPMTSGRRFGGRNAGTEDSDLIEL

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>SoG\_09356.T1

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PRPTTASHTAEGTPQASMTEAQARQEEVDSGTYVNLVMKPKFTRAPITEAGRVAYLGESS

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MHRSVEQSQLPKSDKRLWKRIWWTLFTRDRSVAVALGRPVHINLDDSDVEMLTEDDFIED

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LQNCPKIVYWEVPRHHFWSALLHSNYYTTLCLLHRAHMPPGGASRFPEESPYPSRNIAFQ

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PAFPTMSPSQANQTLEQNLMTHMPPATMPHNGVPGSSTFDFQSNQGGGFLQPGQSYQGHP

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>SoG\_09359.T1

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MIPGSTRFLQALRDVSNATGAVLIFDEVVTSRLHYNGMQAHHGVYPDLTTIGKFWGGGFS

FGAFGGRADIMSAFTPGRLGHSGTFNNNAFTMTAGAVACSLITEDKITTANALGDRLRDG

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>SoG\_09360.T1

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LHLVRELKIPASQIIFSGDSAGGNLALALLRYINDHGEKHDIPMPGALTLWSPWVDIRDA

IESYTESKANYSTDYLTTPFCQWGAIAFTKNGTIDPSQPYLSPLLHPFPPQRGQVPIFIQ

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FTSTTALQLKA

>SoG\_09372.T1

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CPVTLGTGSIADMVPHNKRAGAMSGYVIGAVLGPSIGPICGGYLILSQDWRWVFWLMAII

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CGGVSDKLSAHLTKKHGGQTKPEYRLPTIVIGGVCVPVGLFWYAWTAEKELHWILPIIGT

GFLGAGMIITYMASTLYLVDAYSVYAASVTASSTIFRCLCATFIPLAGPAMYSKLGVGWG

TSLLGFIAVGFIPLPILFYIFGQRIPGVLYRLYFSPISRFPGPKLAAVTFWYGFYYDVIC

GGQYIWKVEQMHKKYGPIVRINPDELHINEPEFYATLYAGSQEHRDKVFKHTRQFGMPDS

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PESEKRLQRMWQEGMIVVGAGTDTTAWTLVVAVVHIIANPSIRHLLENELRAAWAEKSHP

RLSDLEKLPYLSACIKESLRLSYGLSARLPRVAPDQTLEVPGTNGLAIPPGTKMSMNSVL

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RYTEDQGNCLELLNGPASIRDVEIAGDMFLPSVKGDKGVKAVFR

>SoG\_09377.T1

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TALIKRAYQDAGLDPTLDRCQFFEAHGTGTRAGDPVEARAIRDAFFPDKADGEEADPTAE

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DILRASGISFRGVVGHSSGEIAAVYAAGIISARDAIRIAYYRGLYSNLAKGPNGETGAML

AVGLSFEDATELCARSEYHGRIRVAAANSPTSVTLSGDADAVDEVKSDLDATKIFARKLN

VDTAYHSHHMTPCSAAYLSSLEKCKIQVQEPREDCVWVSSVRGDEESSMEDESNDEDLDS

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CWDHGRVYWKESRISQRFRLKDRRVHDILGRRAADDTNEFRRWRNILRPSEFPWVRDHAF

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VLAAIASPQTGQMWTMYLPIGIRRATIHMNSLPRETASTSHITAKSFAFLTSSTAQAVEA

NVQIMFGSRVGVQVEGVELQTTGDALAAGDRLLFSNTVWEDDISTGFGEVQLEHPPDPVH

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QRPNATVLSIDGLAGASPSSLQFPTIVDWAERQGTTLMACIKPLEPSGIFSSSRTHLMVG

LNGDLGQSICSYMIRNGARYIAITSRSGNVNPDWLEVVRQEHKADVRILKMDVSDRHSIT

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>SoG\_09396.T1

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>SoG\_09397.T1

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>SoG\_09401.T1

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>SoG\_09402.T1

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>SoG\_09405.T1

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>SoG\_09409.T1

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>SoG\_09414.T1

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>SoG\_09417.T1

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>SoG\_09423.T1

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>SoG\_09429.T1

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>SoG\_09456.T1

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>SoG\_09458.T1

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>SoG\_09460.T1

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>SoG\_09467.T1

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>SoG\_09476.T1

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AEIEN

>SoG\_09478.T1

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>SoG\_09483.T1

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>SoG\_09494.T1

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>SoG\_09496.T1

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>SoG\_09510.T1

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>SoG\_09512.T1

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AETV

>SoG\_09533.T1

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>SoG\_09538.T1

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>SoG\_09546.T1

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>SoG\_09553.T1

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>SoG\_09555.T1

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>SoG\_09556.T1

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>SoG\_09565.T1

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>SoG\_09570.T1

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>SoG\_09571.T1

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>SoG\_09580.T1

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>SoG\_09594.T1

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>SoG\_09599.T1

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>SoG\_09656.T1

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>SoG\_09660.T1

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>SoG\_09662.T1

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>SoG\_09670.T1

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>SoG\_09673.T1

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>SoG\_09679.T1

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>SoG\_09694.T1

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>SoG\_09696.T1

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>SoG\_09708.T1

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>SoG\_09713.T1

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>SoG\_09721.T1

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>SoG\_09728.T1

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>SoG\_09729.T1

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>SoG\_09742.T1

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>SoG\_09747.T1

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>SoG\_09751.T1

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>SoG\_09761.T1

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>SoG\_09764.T1

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>SoG\_09784.T1

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>SoG\_09787.T1

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AKL

>SoG\_09789.T1

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>SoG\_09792.T1

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>SoG\_09796.T1

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>SoG\_09797.T1

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>SoG\_09799.T1

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>SoG\_09800.T1

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>SoG\_09802.T1

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>SoG\_09804.T1

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>SoG\_09807.T1

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>SoG\_09822.T1

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>SoG\_09827.T1

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>SoG\_09828.T1

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>SoG\_09831.T1

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>SoG\_09833.T1

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>SoG\_09835.T1

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>SoG\_09841.T1

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>SoG\_09859.T1

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>SoG\_09866.T1

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ISNGSLYSVS

>SoG\_09868.T1

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DKVIFVDADQIVRTDMIDLVNHDLEGAPYGFTPMCDSRTEMEGFRFWKQGYWASFLRGMP

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>SoG\_09869.T1

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RGVDFHKTQPLFVSGGDDYKIKVWSYQTRRCLFTLNGHLDYVRTVFFHHELPWILSSSDD

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LESPTLLSLKKLGSAWVAPRTLSYNPAERSVLVTSPADSGSYELINLPKDGSGIEPTESK

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>SoG\_09875.T1

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TGNGQNSC

>SoG\_09901.T1

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>SoG\_09904.T1

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>SoG\_09926.T1

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>SoG\_09933.T1

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>SoG\_09951.T1

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>SoG\_09957.T1

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>SoG\_09978.T1

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>SoG\_09991.T1

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RVLIGVDREKNWRHSFVATYFILDVSTQTVEPLVPNDAKARVQMATWSPQSDAVAYTRDN

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>SoG\_10001.T1

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QCIKTFEGHVGQVQQVLLMPEDFEPDEVPSKDSGDTASVHSGRSVSPVASEPPVHDRTAY

GPGFGSDDGRPLPPRYMLTGGLDNTIRLWDTATGKCIRSMFGHVEGVWGLAGDTLRVVSG

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TPS

>SoG\_10028.T1

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>SoG\_10030.T1

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LQDHPETIIMWELNKPVPAGQTTMDSDAGIFLRHEVKNKYGDDGEAADIMMHCYQIPFTL

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KPRL

>SoG\_10031.T1

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KEGSGENK

>SoG\_10032.T1

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>SoG\_10045.T1

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>SoG\_10048.T1

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>SoG\_10051.T1

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RKLDLTSVQNVMCSGAALSDETVAAMKKILAPGVAILNGYGMSETTLTLLREARRDKGAS

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VRVDKDGFFYLTGRKKELIKFKGNQIPPTELEAVLQLHDQVVEAGVCGVWDKRMETEIAI

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KATEMRSRKQKL

>SoG\_10055.T1

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KLWDAGSGREVQTLKGHSGKVQAIAFSPNSKTLASA

>SoG\_10056.T1

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>SoG\_10061.T1

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PYSNASTLVDSWCKNGASVTFTTYASGGHLTTEVIAVPDAIQYVAKAFAGKVPSGCSTNT

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>SoG\_10064.T1

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HVACLAPRGDTFAPTVTELSVTEYGFLETPEYVPKFGRDRNVEVDDSIWGRLFYRGLRDA

DKTLDYDEAVVRSALTWLQCPPQDKPWVLFMPLLFPHCPFQVEEPYFSMYNRDEMLLPSR

IQKTGYEPRYMKKIRDTYGTGRATDEIWKEIIATYYGMISRLDEQFGRIIDKVDELDLWK

DTVSMFFTDHGEYLGDHGLIEKWPSGLSDSLVHEPLIIAGAGLPTGKITQMTEMVDLVPT

MFELSGVSQTFAHNGLSWVPLLIAEDRASLQHKEYAISEGGFLTSEEPLLEQAPYPYDLK

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>SoG\_10068.T1

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>SoG\_10073.T1

MRTGPLPSGGVPFNRETQPAVLAIGRQPSSDNTSPLEDQENVEDLFKIRRPTSNVWSEIR

GAIRAIGRSSQRGTLQAESEASTVQNPGFTTSNSFKGRVAAESAKEADRLGQRFLKQKVR

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>SoG\_10090.T1

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RMGEAVMQGKIVEPSFAKGDWGVRWRE

>SoG\_10120.T1

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>SoG\_10125.T1

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>SoG\_10127.T1

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KPGDAPYEAHAQPSPPNLYGQTKLDGEKVLLEEFCKAGKKGSAVVMRVPVLYGKAEVPAE

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>SoG\_10132.T1

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RYCVFSKGEACWRGDDHPASPVNPLSSKFPTFDRGLHVSTPTIVEQDVQFRTKLQEEGAA

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TNWNTCFSRAEGGGMLLAMATHLLDVVEWLTDSPLRPNSAETVATSNSIGPLPTGDARIV

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VGLFGTHAGVV

>SoG\_10141.T1

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SEALVQVDSEPPPAPRVSLTSVFPFPSVAGTDSVAVALRMALLYILSTPRVYNKLVGELR

DAERAGLASTPIRDAEAKRLPYLQAVIREGMRIFASQTPLLNKTVPDGGDVIAGVWVPAG

TQVGMDGAPCSKIHQWGILRSKETFGPDAHVFRPERWLDVEPEKQADMAAALEALFGYGR

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AA

>SoG\_10143.T1

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>SoG\_10184.T1

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>SoG\_10189.T1

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>SoG\_10190.T1

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SPVGDDLYREQFDEWEKQEAVKVFRAFSRSPGNSDGGKYVQDLLWAKRDEVGELWSRGAK

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>SoG\_10201.T1

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>SoG\_10205.T1

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GELSTNPTFKESQQMPYLQAVIKEALRLHPATGLPLERVVPEGGATISGQFFPKGTIVGL

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KLIPRLIRDFTFQLDGPLQTGNWRTSDYWFVKPLNFKVKVHQTLMRLIDTEMTHSGALGE

>SoG\_10206.T1

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>SoG\_10214.T1

MVSKSFISVLFAALLPALTSAQQSGRTTRYWDCCKPSCAWSGKAPVSQPIRTCSANDSPL

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>SoG\_10220.T1

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>SoG\_10229.T1

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>SoG\_10230.T1

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>SoG\_10232.T1

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>SoG\_10233.T1

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>SoG\_10240.T1

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>SoG\_10270.T1

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GVVRWVKDRVVSASRTHVTLQGGEQIPYEYLLVATGSGVDEGLPSRVNHSEKAEGLRRLR

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EPNKSN

>SoG\_10271.T1

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QASVHQAWQAILQQREASKQSRALIVFTVITIVFLPLSFMSSVFGMNNFEFTGDSMGLSS

QLGLMFGVSTGVIAIVLIAAFSTNVQGLFWSLVSVSFDWAMVRTGIYRLWLRVSGQPGAG

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>SoG\_10283.T1

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VDVVLGYDNASYYPVDPSHPVYNAIPGRYVNRIGHARYSIGNETFETQNNDGGNTLHSGT

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>SoG\_10285.T1

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AMNDATIADFFTKVADRSPLPVVIYNYPGAVAGIDISSDLLIQLSKHRNIVGTKFTCGNV

GKLARVAHAAHAVSEAFPSTSSGKSYFAFAGIADFISSSVEVGSSGAIVGAANVLPRACV

NVYQLAVQGRRQEALKAQQELATADWELTKRAIPGFKAILEKWHGYGGVPRSPMASLSGE

EKELLYRDIGDMMGVEGQRQVLK

>SoG\_10286.T1

MTATVGTVLVTGATGFIGAHIVDNLLSRGLNVRGATRSLAKGQAMIDARPQHASSLSFVP

ISDFESPGGLNEAVKGVDAIIHTASPLTYDTTDNEKELVIPAINGVKAVFEAAAACGTVK

RIVITSSFASVLDAARKGPPYFTYTADDWNPLTYEETVHPSTSAVIAYRGAKKFAELEAW

NFVKEKDPGFSIVALCPPMTFGPVVHPVDDVEKLNESNSMLWKIAKGQGPLPVARVPFWI

DVRDLAAAHVEALLREDAGMKRYTPSAPERFTYGLAASIMSEEFPDLKGKVVVEEQHADE

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>SoG\_10288.T1

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SNDLFFGAAIEAEDDVVSLMENDSRITRAWPVTAIKLSTGFDVTTFSDMVNTTTYRPHSL

TGVDKLHKAGIRGNGVTIAVVDTGLDYTHPGIGGGIGPDKTVIGGADLVGDGCWPNSGCP

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KNIWYRAYGYPSLFSGWDLMPWDEKSSVSFDLAVGSQDFPKLQASLVFGSPELRWDIFQP

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VADLLQYLENRGETDFFSGEPLRALSTLVFSENIDLQRSASLTFAEITERDVRAVDRDTL

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VGDYSIFVQNWNEPNGGIHGYLSRFLKSGDPTFQHIATWTLLQLFESEDRTLISLIGKAE

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>SoG\_10300.T1

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>SoG\_10301.T1

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EYGCKRRVFNAGYLESLHRDNVTVTDERPREIKSDHIITSGAKVVKADAIIFANGFKTER

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>SoG\_10308.T1

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KARDFSA

>SoG\_10310.T1

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VWYYNVPVEGQLYKQIDRLHDVYGPIVRITPDEVHLSDPSHYDYVYGVKSGFYKDPRFYS

ALGIDVATFGSIHNEAHRRRRAAINPFFSRKKVLELEGIVHDKADKLCRILNSDRAANKP

TNIDAAFRAISVDVITDYAFGESWDQLGSPDLGVWFSDMVRGSSAMFWTLQAFPALKFLH

SLPPSVAKRMSPAVADFIGCQVRTLKHVSDVQKEVDQGIKPARETIFHQLMDPYAAEDHV

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LEAFDVSDEDMVYQEYFSAFHPPEKRKFRVVVRDD

>SoG\_10326.T1

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SNGRVLLNFEAVDYYATVFVNGEKLESHAGGYNRFTVDVTDRVSFSASNSLLVFVHDPTD

SEVIPVGKQTQHPSHIFYRSCSGIWQSVWLESAPADHATQLDLSADMNGKVTVKVHSSKA

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>SoG\_10327.T1

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RSAPQNGDRSCDREAIGGKHYGPVMVYMSKVSDASTADGSSGFFKVFEDGWAKNPSGAVG

DDDFWGVKDMNRCCGRVDVPIPKDLADGDYLVRAEVIALHTAMSSGGAQFYMTCYQITVS

GGTGTASPATVNFPGAYKASDPGILVNIHTPLSSYTVPGPAVYSSGKTKKAGSDCSGCEQ

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GVSAPYYSQCQK

>SoG\_10335.T1

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>SoG\_10348.T1

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>SoG\_10361.T1

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SAIFLATSPTGASGSWTNRGLVIESSSSDDYNAIDPNLVVDASGRWWLSFGSFWTGIKMI

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ALLGINLIRYESDWPVVY

>SoG\_10367.T1

MTLKAETLSTLRGIVEQSCADQQKDIPGTAVVVVGKDGQELFAHAAGKRGLASQEAMTLD

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LRQPLVVDPDDKAEVDRVFNSGGAGMFAKPRDYCKALTKCSSKTKEVLAVLLNDGTCPRT

GARLLEKQTVDEMFRNQIPQFPDFGRQPIPAAKPDLTNPVSELYPVAGNPPQGWGLTFML

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AL

>SoG\_10375.T1

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TMLKERLGFRGYIMTDWDAQHSTAQSANTGLDMTMPGSNWGGGNVFWGPQLESAVRNGQV

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PLKSQKTIAVIGSGAVIGRHARNQCQDAGCNDGALGMGWGSGTVNYPYFVAPYDAINTRA

QSQGARVVLSNSDNANSGAQAAQGADVALVFITADAGEGYIEVEGNKGDRNNLDPWHNGN

ALVQAVANANQNVVVVVHSVGPVLLESILSNPSVKGIVWAGLPSQESGNALVDILWGDTS

PNGKLVYTIAKQRGDYGTSVVNGNDNFSEGLYIDYRHFDKAGIQPRYEFGFGLSYTTFEY

GSVTVDAGTITPGPATGSMISGGPSGLFESVATVSVTIKNTGSVAGAEVAQLYLTYPSSA

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>SoG\_10382.T1

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PVLPAKSYRSQVPQYLLDFDQVEESAAYKHAVAAIEKLPTPPSLPGFLGKPILNAATLMK

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>SoG\_10383.T1

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AVSNQNRFGWNMGYRSQSYVYTTPAHLRSYLNYVWNTWRRPVLLSEFGFPVFAETRKQPA

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>SoG\_10395.T1

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RSLEKAFVA

>SoG\_10407.T1

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>SoG\_10411.T1

MPSSTISTLSLLLLSLAASVYAHGFVQSIVINGAEYQGYNVFQAPYQPNPPTVIGWSNTA

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>SoG\_10422.T1

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PRSEASPR

>SoG\_10433.T1

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>SoG\_10452.T1

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>SoG\_10463.T1

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QHRQQQENQHHHHHQQQQQQQTYEDSPRSQRTAGGRPLGAATAQSNPSDVDIGFLQVYGP

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>SoG\_10464.T1

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>SoG\_10475.T1

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>SoG\_10478.T1

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RFTALGVEVAYTEVDIRHSSIPADDQARARQGDDYAAVVGSCLDVEGCIGFTVWGFSDKY

SWVEGTFPGEGEACIYDSNLERKPAWTSVSSVLAAAASATTAEPPAETGGSRTASSTTFA

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>SoG\_10496.T1

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>SoG\_10503.T1

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SLGGRGAR

>SoG\_10506.T1

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>SoG\_10521.T1

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