

Handwritten notes at the top of the page, including a diagram of a curved line with arrows pointing outwards, and some illegible text.

Two horizontal lines for writing.

Two horizontal lines for writing.

"#%\$%&! ' ()*\$+(, ! - %! - %)#. /\$!0%!12(!3/(!0*! 4 2\$!(1520/620+7/!#%8!\$1/!9%1(+%#1\$0%#)!
" (&7)#1\$0%!

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#%\$!&'()*!+),-.!!

! / '0 1 ,2(3! 40(56*78!9,636: ,2(3! 40(56*78!*)230(-! 40(56*78! (*;!7)97<(*20=,*>)70;! 1) * ,<6*7! (-0!
*6<!*04! ,*!<'0!(-<!6>!4 (-?!!@*!>(2<8!(226)*<7!6>!<6A,*7!(*;!B0*6 1 7! ; (<0!9(2. !<6!(*2,0* <!< , 1 07!4 '0*!
9647!(*;!(-647! 40-0!2)<<,*:=0; :0!<02 ' *636:\$?!!#)<!<'0!0A,7<,*: !>-(1 046-. 7!-0:)3(<,*: !<'070!
40(56*7! -0C),-0! , 1 1 0; ,(<0! (*;! 1 6-0! 0A(2<,*: ! 72-)<,*\$?! ! @*! 3(<0! DEDF8! G(1 (7! -0,*<0; ! (!
:0*0-(<,6*7=63;!26*>3,2<!4 ,<'!@7-(03!<' -6): '!(!7!)-5-,70!<<(2. ?! !&' 6-<3\$!<'0-0(><0-8!:369(3!'0(;3,*07!
-056-<0;!@7-(03!4 (7! ;0536\$, * :! 4 ' ,<0!5 '675 '6-)7H (! ' , : '\$!B63(<,30!7)97<(*20H,*<6! I (J(?! !K'0!
56<0* <,(3!;0B(7<(<,6*!6>!4 ' ,<0!5 '675 '6-)7!7!7' 62. , * :8!\$0<k'0!0A,7<,*: !30: (3>-(1 046-. 7! :6B0-* , * :!
,<7!)70!(-0!96<'!(1 9, :)6)7!(*;!6B0-3\$!30* ,0*?!K' ,7! / 6 1 1 0* <!(-:)07!96<'!>6-!(!26 1 5-0'0*7,B0!
-00B(3)(<,6*! 6>!<'0! :369(3! :6B0-(*20! 6>! 2'0 1 ,2(3! (*;!9,636: ,2(3! 40(56*7! (*;! 2(337!>6-!<'0!
07<(93,7' 1 0* <6>!(!4 ' ,<0!5 '675 '6-)7!26*B0* <,6*?!@*! ; 6,* :!768!,<!4,33!0A536-0! '64!<'0!2)--0*!<30: (3!
>-(1 046-. 7! ' (B0! 900*! 7' (50;! 9\$! <'0! ' ,7<6-\$! 6>! <'070! 40(56*78! (* (3\$J0! <'0! (1 9, :)< ,<07!
7)--6)* , * :! 4 ' ,<0!5 '675 '6-)7!)708! (*;!-026 1 1 0* ;!(2<,6*7!<6! 1 ,< , : (<0! ,<7! ;0536\$ 1 0* <! (*;!<'0!
) *20-<(*\$!,*! ,<7!-0:)3(<,6*?!!

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9: 9%1+087;1\$0%<!=#;>&+07%8!

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L*!L2<690-!M8!DEDF8!<'0! 1 ,3,<(*<!(*;!563,<2(3!:-6)5 HG(1 (7H3() *2'0;!(!7!)-5-,70!<<(2. !(: , *7<!
@7-(03!(7!-62. 0<7!-(, *0;! ; 64 *!>-6 1 !<'0!7. ,07?!!G(1 (7!4 (7!6- , : ,*(33\$!07<(93,7'0;!9\$!&'0, . ' !N' 1 0; !
O(77,*! ,*!"PQM!4 ,<'!(!5-, 1 (-\$! 1 ,77,6*!6>! ; 7 1 (*<3,* :!@7-(03!(*;! , *7<,<)<,* :!R(*!@73(1 ,2!762,0<\$! ,*!
' ,7<6-,2!S(307<,*0?T"!! /)--0* <3\$8!G(1 (7! ,7!<'0! !"#%&'(!-)3,* :!5(-<\$!6>!S(307<,*08#19)<! ,7!6*3\$!6*0!6>!
<'0!<46!0A,7<,* :!563,<2(3!5(-,078!<'0!6<'0-!90,* :!U(<('8! 4 ' ,2'!5-0>0-7!(!3077! 1 ,3,<(*<!(55-6(2' !
<64(-;7!-0763B,* :!<'0!6* :6,* :!@7-(03=S(307<,*0! ; ,75)<0?S!!

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V0-0!; (\$7!(>0-!G(1 (7! , * ,<(3!963; !<<(2. !6*!@7-(038!G) 1 (*!X, : '<7!Y(<2' !ZGXY[!B0-,>,0;!@7-(03,!
;0536\$ 1 0* <! 6>! <'0! ' , : '\$! ; (*:0-6)7! 4 ' ,<0! 5 '675 '6-)7! ,*! I (J(? % !! N*(3\$J,* :! B, ;06! (*;!
5'6<6:- (5' ,2! 0B, ;0*20! 6>! 1) * ,<6*7! 0A536; , * :! (96B0! I (J(8! GXY! 4 (7! (930! <6! 26*23) ;0! <'0!
1) * ,<6*7!40-0!(- 1 0; !4 ,<'!4 ' ,<0!5 '675 '6-)7!902()70!6>!<'0!4 ' ,<0!564 ;0-3, .0<(-,37!>(33,* :k6!<'0!
:-6)* , ?&!! GXY!263302<0;! (; ,< ,<6* (3!0B, ;0*20! B, (! , *<0-B,04 , * :! 4 ,<*077078! -056-<,* :! (!R7<,>3,* :T!
7 1 033?! !N226- ; , * :!<6! GXY8!96<'!R4 ' ,<0!7 1 6. 0! (*;! (! : (-3,2!7 1 033T! (-0!2' (-<2<0-,7<,27!236703\$!

1 ! "#%&' &(\$)**&+, - . \$! "- /\$0\$ 12. () *+,) * () - (. /01* - 23* 2 (4* (53

2 ! "&\$0(\$%&' &(3 , 5 2 104*, 2* ,) . 0 / 2* . 46

(7762,(<0;!4,<'!4',<0!5'675'6-)7!;0536\$10*?;!)

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K'0!5)-5670!6>k',7!/6110*!<,7!<6!0A53(*!4'(<!4',<0!5'675'6-)7!,78!4'\$!,<!7!76!;0<-10*<(38!'64!
<!0B(;07!:369(3!-0:)3(<,6*8!(*;!4'(<!763)<,6*7!7'6)3;!90!,153010*!<0;!<6!0*7)-0!7(>0<\$!>-61!,<7!
'(-17?!K6!(2',0B0!<',7!:6(38!<',7!/6110*!<)707!7,A!650-(<,B0!702<,6*7?!K'0!>,-7!<702<,6*!(*<(3\$J07!
4'(<!4',<0!5'675'6-)7!,78!'64!,<!46-.78!(*;!<7!;(*:0-7?!K'0!7026*;!702<,6*!3(\$7!6)<!<'0!',7<6-\$!
6>!2'01,2(3!40(56*!)70!(*;!;0B036510*!<8!70<<,*:!<'0!7<(:0!>6-!)*;0-7<(*,*,*!<'0!;0B036510*!<6>
<'0!30:(3!,*>-(7<-)2<-0?!K'0k',-;!702<,6*!(*<(3\$J07k'0!(;B0*!<6>k'0!:6B0-*,*:*!<'0-*(<,6*(3!-0:,10!
>-61!,<7!6-,*,*7!(*;!366.7!(<!-03(<0;!-0:)3(<6-\$!0>>6-<7?!K'0!>6)-<'!702<,6*!;,72)7707!k'0!<46k-0(<,07!
2615-,7,*:*!<'0!2)--0*!<-0:,108!;,7702<,*,*!<'0!18!(*;!5-6B,*,*!(!;0C)(<0!,*7,:!<!,*!<6!<'0,-!0>>02<?!
K'0!>,>'!702<,6*!56,*<7!6)<!,*(;0C)(2,07!4,<'!<'0!2)--0*!<-0:,10!(7!,<!-03(<07!<6!4',<0!5'675'6-)7!
-0:)3(<,6*?!K'0!>,*<(3!650-(<,B0!702<,6*!5-656707!5677,930!763)<,6*7!<6!(<!,*!>,A,*:*!<'0!2)--0*!<-
-0:,10!7!5-6930178!(*;!<'650>)33\$8!7'0;!3,:!<'6*!4'\$!2'(*:07!(-0!*02077(-\$?!)

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99: 4 2#1!\$/! 4 2\$!(1520/620+7/?!

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Y',<0!5'675'6-6)7!,7!(!2'01,2(3!*6<6-,6)7!>6-!2()7,*:!2(3(1,<6)7!'(-1!<6!(3167!(*\$!6-:(*,71!
6-!,*(*,1(<0!69\02<!,<!0*26)*<0-78!)

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N; ; ,<6*(33\$8!0A<0-*(3!26*<(2<!4 ,<'!4 ' ,<0!5 ' 675 ' 6-)7!2(*!2()70!3,>0=(3<0-,*!:7.,*!;(1 (:0?!:!!Y ' ,<0!
5 ' 675 ' 6-)7!,7!>(=763)9308! 1 0(*,*:!,<!4,33!9)-*!4 ' 0*!26 1 ,*!:,*!26*<(2<!4 ,<'!7.,*8!(*;!26*<,*),*!:!
<6!9)-*!)*<,3!,<!-0(2'07!96*0?!:!!K-0(<,*!:<'070!.,*;*7!6>!46)*;*7!,7!<-,2.\$!902()70!0B0*!(><0-!<'0!
,*,<,(3!<-() 1 (!7)97,;078!4 ' ,<0!5 ' 675 ' 6-)7!46)*;*7!2(*!90!-0,*;<0;!4 ' 0*!;-077,**7!(-0!-016B0;!
(*;!<'0!2'01,2(3!,7!-0=0A5670;!<6!6A\$:0*?<!!K'0-0>6-08!4 ' ,<0!5 ' 675 ' 6-)7!,7!*6<6*3\$, *2-0;,93\$!
5-02(-,6)7!4 ' 0*!' (*;3,*:8!9)<R_0`B0*!-03(<,B03\$! 1 ,*6-!9)-*7!(-0!6>0*!><(3T"!902()70!R<'0-0!,7!
6!(<,;6<0!>6-!4 ' ,<0!5 ' 675 ' 6-)7!<6A,2,\$?T""!!!

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999: @2(A\$;#)! 4 (#60%!=#;>&+07%8!

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N? S! "=Y #! \$%k Y ' !k@k a kK ("k I ! " ')k Y ' !%kK ("kb * " ! + " , - "k# . k / (" * / - ' \$k Y " ' 0 # , 1!

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Y ',30!4 , ;075-0(;!2'01,2(3!40(56*7!902(1 0!565)3(-,J0;!(*;!(-0!(7762,(<0;!4,<'! Y6-3;!Y(-!@8!
<'0-0!,7!0B,;0*20!6>!2'01,2(37!)70;!,*!4(->(-0!;<,*!:9(2.!<6!<'0!(*2,0*<! I-00.7?""#!!U6-!0A(1 5308!
G6 1 0-7!) !*++""*!0A53,2,<3\$! 1 0*<,6*7!; ,55,*!:9-6*J0!(-647!,*!R 1 (*.,33,*!:;-):7?T"\$!!c,.04,708!

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(2<) (33\$!2(5,<(3,J,*:!6*!<'0,-!7)22077!9\$!(;B(*2,*:!(2-677!<'0!9(<<30>,03;8!4 ',2'!0B0*<) (33\$!(33640;!<'0!U-0*2'!<6!-026B0-?#"!!N3<'6): '!O5-07!4(7!)*0B0*◇)3!>6-!<'0! I0- 1 (*78!<'0,-!;,726B0-\$!6>!<'0! 1,,: '<6>!2'36-,*0!: (7!7(4!<'0!0*-<(*20!6>!(!*04!.,*;!6>!40(56*!,*<6!<'0!<'0(<0-!6>!4(-8!<'!)7! 2'(*:,*:<'0!<-!(02<6-\$!6>!4(->(-0?##!!!

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I0-1 (*\$W! 2'01,2(3! 5-6;)2<,6*! 0>>6-<7! 40-0! 750(-'0(;0;! 9\$! U-,<J! G(B0- H<'0! R>6)*;0-! 6>! 2'01,2(3!40(56*7?T#\$!! I0-1 (*!G,: '!/611(*;!0*<'!)7,(7<,2(33\$!0*;*6-70;!G(90-W7!(;B(*2078!(*;! I0-1 (*\$W!(2(;01,2!(*;!,*;)7<-, (3!5-64077!(33640;k'01!k6!5-6;)20!2'01,2(3!40(56*7!6*!(!72(30!) *700*!9\$!' ,7<6-\$?##!!G(90-W7!7)22077!4,<'!2'36-,*0!: (7!(<!O5-07!)7'0-0;!,*!*04!;,726B0-,07!6>! 6<'0-!<0-,>\$,*: !2'01,2(3!(:0*<7!3,.0!5'67:0*08!1)7<(-;!:(78!(*;!304,7,<0?##&!!!

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#)<! ;075,<0!2'01,2(3! 40(56*-\$W!0>>02<,B0*077!,*!<'0!2619(<! (-0*(8!2'01,2(3! 40(56*7! 40-0! -0756*7,930! >6-! R.,33,*: !5-656-<,6*(<03\$! >04! 763;,0-7! ,*! Y6-3;! Y(-! @8T #' !(226)*<,*: !>6-! (55-6A,1 (<03\$!PE&EEE!;0(<'7!(*;!30(B,*: !*0(-3\$!6*0!1,33,6*!763;,0-7!4,<'!R;09,3,<(<,*:!,*)-,07?T#:#!! L*0!6>!<'0! 16-0!,26*,2!>0(<)-07!6>!2'01,2(3! 40(56*7!,*! Y6-3;! Y(-!@! 4(7!>6-!5)-56707!6>! 57\$2'636:,2(3!1(*,5)3(<,6*8!2()7,*: !4' (<!4(7!. *64*!(7!R:(7!>-, : '<?T#:#)<!'0!'6--6-!(*;!5640-! 6>!2'01,2(3!40(56*7!30>!(!3(7<,*:!,15-077,6*!6*!<'0!46-3;8!(3364,*: !Y6-3;! Y(-!@!<6!90!;)990;! <'0!R/'01,7<W!Y(-?T\$<!!

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#? S#1)=Y#!\$%kY' !&@%kK("&h/1'00"'! ', -"k#.k/ ("*/- '\$tY"'0#,1i!

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/ '01,2(3!40(56*7!<66.k'0!46-3;!9\$!7<6-1!;)-,*: !Y6-3;!Y(-!@8!9)<!Y6-3;!Y(-!@!7(4!<'0!RB,-<) (3!

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K'0!>0(-!6>!2'01,2(3!40(56*7!4(7!(22615(*,0;!9\$!(!70*70!6>!) *0(70!902()70!6>!2'01,2(3!
40(56*7W!B63(<,3,<\$!(*;!)*5-0;;2<(9,3,<\$!<')7!(;;,*: !<6!<'0,-! ;(*:0-!902()70!R3,.0!167<!6<'0-!

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K', -; !X0,2'!9)<!>3640;!,*<6!<'0! / 63;! Y(-! 4,<'!<'0! e!&! :6B0-* 10*<!26*;)2<,*:!075,6*(:0!<6!

9B: C(&#)9%*+#/1+7;17+(!D(E)06A(%!

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N? X"+2\$')#!3&b..#!)1k#" .#!"k) ("k/ ("*/1)W1kY'!!

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K'0!0(-3,07<!70 1 93(*20!6>!,*<0-*(<,6*(3!-026:*,<,6*!6>!<'0! ;(*:0-7!6>!2'0 1,2(3! 40(56*7! 4(7!,*!
"gM^8! 4',2'!<66.!<'0!>6- 1!6>!<'0!>,-7<!9,3(<0-(3!(:-00 1 0*<!90<400*!U-(*20!(*;! I 0- 1 (*\$!<6!9(*!
2'0 1,2(3! 40(56*7?&:!!K',7!26 1 5(2<8!2(330;!<'0!&<-(796)-:!N:-00 1 0*<!6>! "gM^8!5-6',9,<0;!)7,*:!
R56,76*!9)330<7T!,*! 4 (->(-0! 4(7!70<!,*! 1 6<,6*!(>0-!6*0!6>! c06*(-;6! ;(!k,*2,W7! ;07,:*7!)7,*:!
R564 ;0-0;!(-70*,2!(*;!564 ;0-0;!)35')-T!4(7!7)-5-,7,*:3\$!2-0(<0;!(*;!)70;?&:!!h075,<0!90;,**,*:!
<'0! ;,72)77,6*!6>!2'0 1,2(3!40(56*!-0:)3(<,6*8!<'0!46-3;!46)3;!*6<!700!(*\$! 1 6-0!0>>6-<7!) *,<3!<4 6!
20*<)-,07!3(<0-?!!

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K'0!*0A<!7<05!<64 (-;7! :369(3!-026:*,<,6*!6>!2'0 1,2(3! 4(->(-0W7! ;(*:0-7! 4(7!<'0!S-6\02<!6>!(*!
@*<0-*(<,6*(3! ;023(-<,6*! 26*20-*,*: !<'0! c(47! (*;! /)7<6 1 7! 6>! Y(-8! 6-! <'0! "QMf! #-)77037!
h023(-<,6*8! ,*,<,<0;! 9\$! / J(-!N30A(*;0-! @@! 6> X)77,(? '<!!N-<,230! "F! 6>! <'0! "QMf! #-)77037!
h023(-<,6*! 0A53,2,<3\$! >6-9; ;! <'0! R_0` 1 536\$ 1 0*<! 6>! 56,76*! 6-! 56,76*0;! 40(56*78T! <'0-09\$!
0A<0* ;,*: !<'0!&<-(796)-:!N:-00 1 0*<!6>! "gM^W7!3, 1,<0;!9(*!6*!R56,76*!9)330<7T!<6!(33! 40(56*7? '!!
e*>6-<)*(<03\$8! / J(-!N30A(*;0-W7!5-6567,<,6*!4(7!*6<!(<,>,0;8!' 6 4 0B0-8!,<4(7!<'0!, 1 50<)7!30(;,*:!
<6!K'0!c(47!6>!Y(-!6*!c(*;!6>!"QQE!Z<'0!V(*) (3!8!5-65670;!9\$!<'0!@*7<,<)<0!6>!@*<0-*(<,6*(3!c(4!
<6! 650-<0!(7!(! 1(*) (3!>6-! 1,3,<(-\$! 26*;)2<! ;)-,*: ! 4(-<, 1 0?'!!K'0! V(*) (3! 4(7! ,*0*<,6*(33\$!
;07,:*0;!<6!(3364! ,* ;050* ;0*!&<(<07!<'0!(9,3,<\$!<6! ,*0-(-<0!,<! (7!5(-<!6>!<'0,-130:(3!7\$7<0 1 !<6!
R-07<-(,*k'0!;07<-)2<,B0!>6-20!6>!4(-8!4',30!-026:* ,Jq- 1 -288.79[(N)8.9(7)-0.2-0(0)0.2(.2(0)0- 1 23.9(*0)0.2(A

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40(56*7T!26B0-0;?'!!#)<!(7!&<<07!700 1 0;!5-, 1 0;k6!(; (5<!(*;↳(20k'0!, 1 50*;,*:*!6- 1!6>↳(2,*:!
2'0 1,2(3! 4(->(-0!;)-,*:!(- 1 0;!26*>3,2&! :6B0-* 1 0*<7! -0756*;0;!<6! :369(3!6)<2-\$!6>!2'0 1,2(3!
40(56*7W! ;07<-)2<,B0!*(<)-0!9\$!6)<-, : '<26*;0 1 *,*:*!<'0,-!)70?!!U6-!0A(1 5308!N<-,230!^!6>!<'0!
Y(7',*:*<6*!d(B(3!K-0(<\$!6>!"PDD!-026:* ,J0;!
!

K'0!)70!,*!4(-!6>!(75 '\$A,(<,* :8!56,76*6)7!6-!6<'0-!: (7078!(*;! (33!(* (36:6)7!3,C), ;78!
1 (<0-, (378!6-!;0B,2078!' (B,* :!900*!\)7<3\$!26* ;0 1 *0;!9\$!<'0! :0*0-(3!65,* ,6*!6>!<'0!
2,B,3,J0;! 46-3;!(*;! (!5-6' ,9,<,6*!6>!7)2'!)70!' (B,* :!900*! ;023(-0;! ,*!<-0(<,07!<6!
4 ',2'!(!1 (\6-,<\$!6>!<'0!2,B,3,J0;!S640-7!(-0!5(-<,07?' ' :!
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L*3\$k' -00!7'6-<!\$0(-7!3(<0-8!k'0!-0: , 1 0!46)3;!0*26)*<0-!(*6<'0-!1 (-.0;!7' ,>8!9)<k'0!>62)7!46)3;!
90!;,-02<3\$!6*k(2.3,* :!2'0 1,2(3!40(56*7?!!
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@*!<'0! 4 (.0! 6>! Y6-3;! Y(-! @W7! (<-62,<,078!<'0! c0(:)0! 6>! d(<,6*7! 5(770;!<'0! S-6<6263!>6-!<'0!
S-6' ,9,<,6*!6>!<'0! e70!,*!4(-!6>!N75 '\$A,(<,* :8!S6,76*6)7!6-!L<'0-!: (7078!(*;!6>!#(2<0-,636:.,2(3!
V0<'6;7!6>!Y(->(-08!6-!<'0!"PD^! I 0*0B(!S-6<6263!Z"PD^! I 0*0B(!S-6<6263!6-!<'0!S-6<6263[?' :!K'0!
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Q!

@*!6<'0-!46-;78!<'0!"PD^! I 0*0B(!S-6<6263!4(7!3077!7)22077>)3!(<!9-,*:,*,*:(96)<!(!)<65,(!;0B6,;!6>! 2'01,2(3!40(56*78!9)<!0>>02<,B03\$!2-0(<0;!'<'0!5',36765'\$!<'(<!,>!6*0!&<(<0!4(7!(<<(2.0;!)7,*:!
2'01,2(3!40(56*78!,<!26)3;!650*!<'0!>366;!:(<07!>6-!2'01,2(3!40(56*!-0<(3,(,6*?:&!#!#)<!2'01,2(3!
(*;!9,636:,2(3!40(56*! ;,72)77,6*7! <66.! (!9(2.70(<! >63364,*:!' Y6-3;! Y(-! @@! 902()70! <'0!
,*<0-*(,6*(3!2611)*,<,07!:(J0!7',>0;!'<64(-;7!*)230(-!40(56*7m!76!2'01,2(3!40(56*7!40-0!
<(930;!) *<,3!(>0-!<'0!"PgQ!K-0(<\$!6*!<'0!d6*-S-63,>0-(<,6*!6>!d)230(-!Y0(56*7!-0763)<,6*?:'!!!

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#? K("&#/#\$#+/- '\$&Y" '0# , 1&/ # , 4" ,)/# , &Z# Y / [%& / (" * / - '\$&Y" '0# , 1&/ # , 4" ,)/# , &# , &) ("&
G# !/5# , &!

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&66*!<'0-0(>0-8!,*!<'0!0(-3\$!"PME78!<'0!#,636:,2(3!Y0(56*7! / 6*B0*,<,6*!Z# Y / [!4(7!*0:6<,<0;!
(*;!650*0;>6-!7,:*(<)-0?!:!!K'0!# Y / W!(, 18!4(7!R03, 1 ,*(< ,* :>-6 1 k'0!(-70*(37!6>!&<(<078!<' -6):'!
0>>02<,B0! 10(7)-078!7)2'! ;(*:0-6)7! 40(56*7!6>! 1(77! ;07<-)2<,6*!(7!<'670!)7,*:!'&2"40&%-!6-!
9(2<0-,636:,2(3!Z9,636:,2(3![(:0*<?T':!!Y ',30!<'0!>62)7!6>!<'0!# Y / !,7!<'0!R261530<0! ;,7(-1(10*<T!
6>!9,636:,2(3!40(56*7!<'(<!&<(<07!1(\$!56770778!,<!26*75,2)6)73\$!:,B07!2-0;,<!<6!<'0!"PD^! I 0*0B(!

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26*7,7<0*!4,<'!7)2'!5)-56707m!!
 Z9[V)*,<6*7!(*;! ;0B,2078!7502,>,2(33\$! ;07,:*0;!<6!2()70! ;0(<'!6-!6<'0-! '(-1!
 <' -6): '!<6A,2!5-650-<,07!6>!<'670!<6A,2!2'01,2(3!7502,>,0;!,*!7)95(-(:-(5'!Z([8!
 4',2'!46)3;!90!-030(70;! (7!(!-07)3<6>!<'0!01536\$10*<6>!7)2'!1)*,<6*7!(*;! ;0B,207m!!
 Z2[N*\$!0C),510*<!7502,>,2(33\$! ;07,:*0;!>6-!)70! ;,-02<3\$!,*!26**02<6*!4,<'!<'0!
 01536\$10*<6>!1)*,<6*7!(*;! ;0B,207!7502,>,0;!,*!7)95(-(:-(5'!Z9[?!<%!

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c,.04,708!902()70!N-<,230!@@!*02077,<(<07!2'01,2(3!40(56*7!26*<(*!R<6A,2!2'01,2(37T!(7!(!9(708!

-07502<!6!<'0! / Y / W7!<-0(<10*!6>!0A,7<,*: !2'01,2(3!40(56*7?!&!!&)95(-(:-(5'!Z([!7<,5)3(<07!<'(<! (33!&<(<0!S(-<,07! 1)7<!R;023(-0T! 4'0<'0-!6-!*6<!,<!64*7!(*\$!2'01,2(3!40(56*78!#!R7502,>\$!<'0! 5-02,70!362(<,6*T!(*;! (55-6A,1 (<0!C)(*,<\$!(*;!<\$50!6>!2'01,2(3!40(56*7!,*!<'0!&<(<0!S(-<\$W7! 5677077,6*8!#!(*;!R-056-<T!(*\$!2'01,2(3!40(56*7!<'(<!1(\$!90!,*!<'0!&<(<0!S(-<\$W7!)-,7;,2<,6*!<'(<! 1(\$!9036*:*!<6!(*6<'0-!&<(<0?!#!#!#)<!<'0!167<!7)97<(*,<B0!6>!<'0!>6)-!.0\$!7)9;,B,7,6*7!,7!<'0!>,x'8! -0C),-,*: !&<(<0!S(-<,07!<6! ;07<-6\$!%-!2'01,2(3!40(56*7!4,<' ,*!,<7!<0--,<6-\$!"<

;07<-)2<,6*? !#\$!! &)95(-(:-(5 '! Z2[! (33647! >6-! &<<0! S(-<,07! <6! 7, 1 53\$! 23670! 0A,7<,* :! 2'0 1 ,2(3!
40(56*7>(2,3,<,07!) *;0-k '0,-\)-,7 ;,2<,6*8!#%!6-R53(*>6-!(*\$!0 1 56-(-\$!26*B0-7,6*T!6>!5-6;)2<,6*!
>(2,3,<,07! ,*<6! !'+!/. &'0(,!>(2,3,<,07?!#&!! Y ' ,30!<'0! <0 1 56-(-\$! 26*B0-7,6*! 5-6B,7,6*! 1 (\$! 700 1!
26)*<0=,*<),<,B0!<6!<'0!(, 1 7!6>!<'0!5-0B,600- 1 6 1 3793e Wn / C07?

LS / Y!96; \$8!<'0!bA02)<,B0! / 6)*2,3!70-B07!(7!<'0!R0A02)<,B0!6-: (*T!6>!<'0!LS / Y8!7)96-; ,*(<0!<6!
 <'0! / 6*>0-0*208!(*; ! 1)7!<'0-0>6-0!R(2! ,*!26*>6- 1 ,<\$T!4 ,<'!<'0! / 6*>0-0*20W7! ;02,7,6*7?!%!!K'0!
 bA02)<,B0! / 6)*2,3W7!-0756*7,9,3,<,078!(7!<'0!0A02)<,B0!9-(*2' !6>!<'0!LS / Y8!(-0!76 1 04 ' (<!, *<),<,B0?!
 @<!,7! :0*0-(33\$!-0C),-0;!<6!6B0-700! , 1 530 1 0*<(<,6*!6>!<'0! / 6*>0-0*20W7! ;02,7,6*78! (*;!R26*7, ;0-!
 (*\$! ,77)0! 6-! 1 (<<0-T! -03(<,*: ! <6! 26 1 53, (*20! 6-! *6*=-26 1 53, (*20! 6! 1 0 1 90-7! (*;! 1 (.0!
 -026 1 1 0* ; (<,6*7!<6!<'0!26*>0-0*20?!%!!@*<0-07<,* :3\$!N-<,230!k@@@!(336 4 7!<'0!bA02)<,B0! / 6)*2,3!<6!
 7. ,5!<'0! / 6*>0-0*20!(3<6:0<'0-! (*;! :6! ; , -02<3\$!<6!<'0! e * ,<0;! d (<,6*7! I 0*0-(3!N770 1 93\$! (*;!<'0!
 &02)-, <\$! / 6)*2,3!R, *!2(707!6>!5(-<,2)3(-! :- (B, <\$!(*;!)- :0*2\$?T!%!

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#\$!*(<)-0!6>!N-<,230!k@@@8!<'0!K02' * ,2(3!&02-0<(-, (<!,7!<'0!5-, 1 (-\$! ,*B07<, (<,B0!6-: (*!70-B, * :!(7!
 7)96-; ,*(<0!<6!96<'!<'0! / 6*>0-0*20!(*;!<'0!bA02)<,B0! / 6)*2,3!<6! '035!<'0 1 !R, *!<'0!50->6- 1 (*20!
 6>!<'0, -!>)*2<,6*7?T!%#!!K'0!K02' * ,2(3!&02-0<(-, (<W7! ,*B07<, (<,B0!>)*2<,6*!,7!<'0-6) : ' !RB0-,>,2(<,6*8T!
 7, 1 53\$! 1 0(*, * :!<'0!9-(*2' !B0-,>,07!<' (<!(33! &<(<0! S(-<,07! (-0! 26 1 53, (*! 4 ,<'!<'0, -! 693, : (<,6*7!
 5)-7) (*<!<6!N-<,2307!@!(*;!@@@?!%\$!!& ,*20!<'0!K02' * ,2(3!&02-0<(-, (<!,7! 1 6-0!966<7=6*=-0=-6)* ;8! ,<!,7!
 750(-'0(;0; !9\$!<'0! h, -02<6=- I 0*0-(38! 4 ' 6!7)50-B,707!<'0!@*7502<6-(<0?!%!!K'0! ,*7502<6-7!R2(--\$!
 6)<!<'0!6*=7,<0! ,*7502<,6*7!<' (<! 1 (.0!<'0! / Y / !76!)* ,C)03\$! ,*-<-)7,B08T! (*;! 1 6-0!0>>02<,B0!<' (*!
 5-0B,6)7! -0:)3(<6-\$! 0>>6-<78! 4 ' ,2' ! '035! RB0-,>\$! <'0! (22)-(2\$! 6>! ;023(-0;! , *>6- 1 (<,6*! (*;!
 26 1 53, (*20!4 ,<'! / Y / !693, : (<,6*7?T!%&!

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K'0! / Y / ! 1 (.07! ; ,3, :0*!0>>6-<7!<6!0*7)-0!<' (<!2'0 1 ,2(3! 40(56*7! (*;!5-6;)2<,6*!>(2,3,<,07!(-0!
)* ;0-!26*7<(*!72-)<,*\$!!#)<!<'0!' (*:)5!,7!6*!<'0! / Y / W7!7<(<0;! ;0>,* ,<,6*7!6>!R<6A,2!2'0 1 ,2(37T!
 -0C),-,* :!2'0 1 ,2(37!(2<!<'0-6) : ' !R2'0 1 ,2(3!(2<,6*!6*!3,>0!5-6207707?T!%!!Y ' ,30!,<!26)3;!90!<' (<!,<'0!
 ;0>,* ,<,6*!,7!9-6(; !<6!(336 4 !<(2. 3, * :!>)<-0!2'0 1 ,2(3! 40(56*!,77)078!%:!,<!>(337!7' 6-<6>!(< ; ; -077, * :!
 2'0 1 ,2(3! 40(56*7! (376! (2<,* :!(7! 0, &" , !0%/ *# 9''%6(, +8! 6-! 2'0 1 ,2(3! 40(56*7! 4 ,<'! ,*2, ;0*<(3!
 , *20* ; ,(-\$!5-650-<,07?! / '0 1 ,2(37!3, .0! 4 ' ,<0!5' 675 '6-)7! (-0! -) ,*6)7!<6! ') 1 (*78! (*, 1 (378! (*;!
 7<-)2<)-078!\$0<! ;6! *6!>(33!) * ;0-!<'0! / Y / W7! ;0>,* ,<,6*!6>!R2'0 1 ,2(3! 40(56*7T!%: !902()70!<'0, -!
 , *'0-0*! ; (*:0-! ;607! *6! 3,0! , *!<'0, -! (2<,6*7! 6*! R3,>0! 5-62077078T! 9)<! -(<'0-!<'0, -! , *20* ; , (-\$!
 5-650-<,07!

<)-*8!*02077(-,3\$!6*!<'0!'*6''!6>!40(56*!)70;8!9)<|<'0!4%, , ''/!,*!4 ',2'!<'0!40(56*!,7!;0536\$0;|<'(<!
; ,2<(<07?!'!!K')78!(3<'6): '!N-<,230!D!700 1 7!7)>>,2,0*!<6*!,<7!>(20!,*!5-6<02<,*!:2,B,3,(*,*0-07<78!,<!
(33647!20-<(*!<\$507!6>!,*20*!,(-\$!(<<(2.7H3,.0!<'670!)7,*!:4 ',<0!5'675'6-)7H<6!>(33!6)<7,;0!6>!
S-6<6263!@@@W7!5-6<02<,6*7?!'!!!

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@* ;00;8!0B0*!,*,;B,;) (3!&<(<07!7)5530 1 0*!S-6<6263!@@@W7!;0>*,<,6*!6>!R,*20*!,(-\$!40(56*T!4,<'!
<'0,-!64*!)*;0-7<(*;*,*7!6>!4' (<!,7!(*,!,7!*6<!,*0*0;0;!<6!90!-0:)3<0;?!'!!U6-!0A(1 5308!<'0!e?&?!
h05(-<1 0*!<6>!h0>0*70W7!Zh6h[!;0>*,<,6*!5-02,703\$!<-(2.7!<'0!3(*:) (:0!6>!S-6<6263!@@@?!'<!!#)<|<'0!
h6h!:607!>)-<'0-8!7<(<,*:|<' (<!R6*3\$!n5)-0W!,*20*!,(-,078!7)2'!(7!* (5(3 1 T!(-0!<'0!<\$507!6>!40(56*7!
<' (<!S-6<6263!@@@!70<7!6)<|<6!-0:)3<0?!'!!K'0!h6h!0B0*!:607!6*!<6!7<(<0!<' (<!R4 ',<0!5'675'6-)7!,7!
(!1)*,<,6*!<' (<!26*(<,*7!>-(: 1 0*!<7!6>!4 ',<0!5'675'6-)7?!@!<!,7!,*0*0;0;!5-,1 (-,3\$!>6-!1 (-.,*!:16-!
,33) 1 ,*(<,*:!(!<(-:0!<6-! 1 (7.,*!:!>-,0* ;3\$!>6-20! 1 6B0 1 0*!<9\$!2-0(<,*: !7 1 6.0T!'!! h075,<0!<' ,7!
,;0* <,>,2(<,6*!6>!+(4 ''!6>!4 ',<0!5'675'6-)7W!)7078!,<!93(<(*3\$!,:*6-07!<'0!-07!<6>!<'0!0C) (<,6*?!:#!!
e*>6-<)* (<03\$8!902()70!<'0! / Y / !(*;! / / Y!0A0 1 5<!4 ',<0!5'675'6-)7!)708!&<(<07!46)3;!7<,33!90!
(33640;!<6!0A0 1 5<|<'0 1 703B07!>-6 1 !4 ',<0!5'675'6-)7!-0:)3(<,6*7!,>|<'0\$!40-0!<6!0A,7<?!!

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/? X"1"!4')/# , 1&e , %"!1)' , %/ , +1&t' , %&h " - \$' ! ')/# , 1%&N&Y ' 3&

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K'0!26)*<0=-50-7502<,B0!,7!<'(<!Xe h7!(-0!\)7!<!(4(\$!<6!:0<6)<!6>!RZ(3 1 67<[!(*\$!693,:(<,6*T!<'0\$!
76!2'6670?!::!!K'0! 4 '630! 26*205<! 6>! Xe h78!,7!<'(<!'0!&<(<07! 4 '6! 46)3;!90!<'0!7<())*2'07<
7)556-<0-7!R6>!<'0!,*<0-*(<,6*(3!') 1 (*!-, : '<7!-0:, 1 0!4,33!70<!)5!>04!Xe h7?T'::!K'0-0>6-08!902()70!
<'0!563,2\$!90',*;!7)556-<,*,*!<0-*(<,6*(3!') 1 (*!-, : '<7!0>>6-<7!,7!*0(-3\$!R)*,B0-7(33\$!(553,2(9308T!
4 '0*! .0\$!,*<0-*(<,6*(3!53(\$0-7!)70!Xe h7!<6!0A0 1 5<!'0 1 703B07!>-6 1 !<0(<\$!693,:(<,6*78!,<!R,7!
-0:(-;0;!7!;0B(3),*!:!(*;!)*;0- 1 ,*,*!:!'0!0*,<-0T!5)-5670!6>!70<<,*,*!<0-*(<,6*(3!0A502<(<,6*7!
<' -6): '!<-0(<,07?!<!

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/6,*2,;0*(33\$!96<'!<'0!e?&?!(*;!@7-(03!7)553,0;!Xe h7!4,<'!-07502<!<6!<'0! / / Y?!::!!K'0!e?&?W!
/'+'/'8%0(,+!7<(<07!<'(<!'0!e?&?%!

!<X^070-B07!<'0!-, : '<!<6!)70!,*20*;,(-\$!40(56*7!(: (*7< 1 ,3,<(-\$!69\02<,B07!362(<0;!
,*!26*20*-<(<,6*7!6>!2,B,3,(*7! 4 '0-0!<!,7!\); : 0;!<'(<!7)2'!)70!46)3;!2()70!>040-!
2(7)(3<,07!(*;06-!3077!2633(<0-(3!; (1 (:0!<' (*!(3<0-*(<,B0!40(56*78!9)<!,*!;6,*;!76!
4,33!<(.0!(33!>0(7,930!5-02(<),6*7!4,<'!(!B,04!<6!3, 1 ,<,*!:<'0!,*20*;,(-\$!0>>02<7!<6!
<'0!1 ,3,<(-\$!69\02<,B0!(*;! (B6,; ,* :8!(*;! ,*!(*\$!0B0*<!<6! 1 ,* , 1 ,J,* :8!,*2,;0*(3!3677!
6>! 2,B,3,(*! 3,>08! ,*\)-\$! <6! 2,B,3,(*7! (*;! ;(1 (:0! <6! 2,B,3,(*! 69\02<7? !;!"

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V6-06B0-8!<'0!e?&?!,*23);0;!(*!., !"/+%, !0, I8!>,*,*:%!

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@<!,7!<'0!)*;0-7<(*;, * :!6>!<'0! e *,<0;!&<(<07!6>!N 1 0-,2(!<' (<! (*\$! ;02,7,6*!9\$! (*\$!
1 ,3,<(-\$! 26 1 1 (*;0-8! 1 ,3,<(-\$! 50-76**038! 6-! (*\$! 6<'0-! 50-76*! -0756*7,930! >6-!
53(**,* :8!(<'6-,J,* :8!6-!0A02)<,*,! 1 ,3,<(-\$!(2<,6*!7' (33!6*3\$!90!); : 0;!6*!<'0!9(7,7!
6>!<' (<!50-76*W7!(77077 1 0*!<6>!<'0!,*>6- 1 (<,6*!-0(76*(93\$!(B(,3(930!<6!<'0!50-76*!(<
<'0!<, 1 0!<'0!50-76*!53(**0;8!(<'6-,J0;8!6-!0A02)<0;!<'0!(2<,6*!) *;0-!-0B,048!(*;!
7' (33!*6<190!); : 0;!6*!<'0!9(7,7!6>!,*>6- 1 (<,6*!<' (<126 1 07!<6!3, : '<!(>0-<'0!(2<,6*!!
) *;0-!-0B,04

B9: 9//7(!G\$12!12(!@7++(%1!"(&\$A(!

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K'0!,*<0-*(<,6*(3!') 1 (*!-, : '<7!, *>-(7<-)2<)-0!,7!) *;0-!26*7<(*!72-)<,*\$!>6-!>(,3,* :!<6! 400;!6)<8!
(*;! B,* ;,2(<0! B,63(<,6*7! 902()70! 6>! 70B0-03\$! ,*(;0C)(<0! >6- 17! 6>! ,*<0-*(<,6*(3! 0*>6-20 10*!<
102' (*,7 17? !;&!! K'0! *(<)-0! 6>! 0A,7<,* :! 0*>6-20 10*!< 102' (*,7 17! 5)7',* :! ,*<0-*(<,6*(3! 3(4!
,*'0-0*3\$! 1 (.07! 30:(3! 0*>6-20 10*!< (! R>)*;(10*!<(3! 2'(330* :08T! (*;! 6x0*! ,*0>>02<,B0! (<
(226 153,7' ,* :!<'0,-! :6(37?T! ;'!!

)70;8!4',2'!,7!;,77,1,3(-!>-61!/ Y /W!5-6<02<,6*7!9(**,*:!(*\$!.,*;!6>2'01,2(3!40(56*)70?<%!!
K'0-0>6-08!0B0*!,>!4',<0!5'675'6-)7!9%+!-0:)3(<0;!9\$!S-6<6263!@@@8!3,.0!6<'0-!,*20*;,(-,078!<'0-0!
(-0!7<,33!50-1,77,930!30:(3!\)7<,>,2(<,6*7!(>>6-;,*:!(?!072(50!>-61!90,*;!>6)*;!,*!B,63(<,6*?)"<&!!

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V(\$90!167<!;,7<)-9,*:3\$!(-0!<'0!k,0**(!/6*B0*,<,6*W!>)-<'0-!46)*;7!<6!(?!(3-0(\$!40(.!:369(3!
30:(3!,*->-(7<-)2<)-0!,*!<46!1(,*!4(\$7?"<'!!U,-7<3\$8!<'0!k,0**(!/6*B0*,<,6*!0A5-0773\$!:-(*<7!&<(<07!
<'0!;,72-0<,6*!<6!&2(+!"4'0*8!(,*;!<6!4'(<!,*<0-*(<,6*(3!30:,73(<,6*!<'0\$!4,33!90!96)*;!<6?"<:!!
V6-06B0-8!,>k'0!&<(<07!76!2'6670!k!6!90!96)*;!k!(!5,020!6>!30:,73(<,6*8!<'0\$!2(*!)*,3(<0-(33\$!&2(+!"
4'(<!56-<,6*7!6>k'0!30:,73(<,6*!<'0\$!(-0!:6,*:k6!(553\$k6k'01703B07!9\$!)7,*:!Xeh7?"<:!!&026*!3\$8!
<'0!k,0**(!/6*B0*,<,6*!50-1,<7!7,:*(<6-\$!&<(<07!<6!4,<'!-(4!<'01703B07!>-61!<-0(<07!<'0!&<(<07!
'(B0!7,:*0;!6*!<68!,>!<'0!<-0(<\$!0A5-0773\$!(33647!<'01!<6?"!<!!K'0!2-,<,2,717!0A5-0770;!-0:(-;,*:!

!"+0I, "T! <6! 2()70! ;0(<'! 6-! '(- 1! <' -6): '! ,<7! <6A,2! 5-650-<,078! (*;! ZF[! ,7! .+"! >6-! 5)-56707!
R;050*;!0*;<6*!<'0!)70!6>! ,<7! <6A,2! 5-650-<,07! (7! (! 10<'6;!6>! 4(->(-0?T

<'0!26*0A!6>!'0!9(<<30>,03;!<'0(<0-8!700,*!:4 ',<0!5 '675 '6-)7!3,1,<(<,6*7!(7!26*7<-(*,*,!:1 0<'6;7!
0*7)-,*,!:0A02)<,*,!:7)22077>)3! 1,3,<(-\$!2(1 5(, : *7?"" :!!L556*0*7!(;B62(<0!>6-!R703>=, 1 567,* :!(
-07<-<,2<,B0!0 1 536\$ 1 0*!563,2\$T!>6-!4 ',<0!5 '675 '6-)7!08!4 ',2'!2(--,07!<'0!7(1 0!5,<(>(337!(7!,77)07!
6>!&<(<0!703>=;0<0- 1 ,*(<,6*! (*;!)7,* :! X e h7?"" :!!O0<8! ,*!0756)7,* :!<' ,7!B,04!<' (<! :369(3!30 : (3!
3,1 ,<(<,6*7!(-0!6<!'0! 1 67<!(5<!6-!0>>,2,0*!<1 02' (*,7 1 78!6556*0*7!7<,33!-026 : *,J0!<'0!5(- (1 6)*<
26*20-*! ,*!<'0!<'0(<0-! 6>! 4(-! ,7! R 1 , * , 1 ,J , * : ! 2,B,3,(* ! 2(7)(3<,07! (*;! ; (1 (:0! <6! 2,B,3,(* !
,* >-(7<-)2<)-0?T"#<!
!
!

L*!'<'0!26*0A!6>!'0!9(-\$!-0:)3(<6-\$!5-656*0*7!(< .0!(!B(7<3\$! ; ,>>0-0*!<(55-6(2'?!! Y ',30! 1 6-0!0A5(*7,B0!
/ Y /! (*;! / / Y! 72650! 1 (\$! 7)>>,20! <6! 26)*<0-(2<!<'0! ; (*:0-7! 6>!)7,* :! 4 ',<0! 5 '675 '6-)78!
5-656*0*7! ' (B0!2(330;!>6-! 1 6-0!0A(2<,* : ! , * , < (<,B07!<6!6B0-700! 4 ',<0!5 '675 '6-)7!-0 1 (- . (930!
6-0:)3(<,6*?""#!! V 67<!*6<(93\$8!0A,7<,* :!3,<0-(<)-078!-026 : *,J,* :!<'0!*00;!>6-! :369(3!(<<0*,<6*!6*!
4 ',<0!5 '675 '6-)78!2(33!>6-!(*! ,*0-*(<,6*(3!R Y ',<0!S '675 '6-)7! / 6*B0*,<6*T"#!!#02()70!2)--0*!<
-0:)3(<,6*7!(336 4!>6-!R(*!072(3<,6*!>-6 1 !(!5-650-!30 : (3!)70T!<6!R)70!6>!,<!>6-!,<7!) *0C),B62(33\$!
,330 : (3! 5)-567078T! (*;! ,<7! 56<0*,<(33\$! ; ,7(7<-6)7! 3,* :0,* :! 0>>02<7! R36* :! (>0-!<'0! 0* ; , * :! 6>
'67<,3,<,078T!4 ',<0!5 '675 '6-)7!1)7<90!(; ; -0770;!6*k'0! ,*0-*(<,6*(3!7<(:07!(7!655670 ;!k6!(336 4 , * :!
&<(<07!<6!(; 65<!7)9\02<,B0!563,2,07?""##!
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K'0!*00;!>6-!(*! ,*0-*(<,6*(3! 4 ',<0! 5 '675 '6-)7! 26*B0*,<6*! ,7!07502,(33\$! , 1 56-<(*! 7,*20!<'0!
26*20-*7!7)--6)* ; , * :! 4 ',<0! 5 '675 '6-)7!)70! (-0!00-,3\$! 7, 1,3(-8! ,>! *6<!0A(2<3\$8!<'670!26*20-*7!
0A5-0770;! (96)<!2'0 1 ,2(3!40(56*7!5-,6-!<6!<'0! / Y /W!5(77(:0?""#K',7!,7!*6<!<6! ; ,7-0 : (- ;!<'670!
B,047!-0 : (- ; , * :!4 ',<0!5 '675 '6-)7!30 : ,< , 1 (<0! 1 ,3,<(-\$!)7078""#!4 ',2'!1 (\$!(376!90!(!26*7 ; ,0-(<,6*!
,*!5(77,* :!30 : ,73(<,6*?!!#)<!(* ! (33=6)<!4 ',<0!5 '675 '6-)7!9(* H3 , .0!<'0! / Y /W!2'0 1 ,2(3!40(56*7!
-0 : , 1 0 H 1 (\$!90!*02077(-\$!<6!5-6(2<,B03\$! , 1 530 1 0*!<7(>0:)(- ; 7!>6-!2,B,3,(* ! 4 '6! 1 , : ' <' (B0!<'0!
1 ,7>6-<)*0!6>!,*0-(2<,* :!4 ,<'!4 ',<0!5 '675 '6-)78!(* ;!k6!5-00 1 5<!4 ',<0!5 '675 '6-)7!1 6*7<-6)7!(*;!
, * ') 1 (*0!)70?""#&!!!!!
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B999: @0%;)7/\$0%!
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4', <0!5'675'6-)7!)708!(*;!<'0!0<',27!90',*;!,<8!9-,*!:7!<6!3,: '<<'0!*02077,<\$!>6-!:369(3!(4(-0*077!!
Y',30!<'0-0!(-0!0A,7<,*:!,*<0-*(<,6*(3!5-6<02<,6*7!,*!53(20!(; ; -077,*:!(!-(* :0!6>!40(56*78!<'0-0!,7!
(!:(5,*:!'630!4'0-0!4',<0!5'675'6-)7!-0:)3(<,6*7!7'6)3;!>,<?!!b7502,(33\$!902()70!<'0!-(<,6*(307!
)*;0-3\$,*:!<'0!"PD^! I 0*0B(! / 6*B0*<,6*8!<'0! / Y / 8!(*;!<'0! / / Y W7!S-6<6263!@@@!(-0! , ; 0*<,2(3!<6!
<'0!)7<,>,2(<,6*!>6-!, 1 530 10*<,*: !4',<0!5'675'6-)7!-0:)3(<,6*7?!!!U6-!4',30!4',<0!5'675'6-)7!(*;!
7)97,; ,(-\$!4',<0!5'675'6-)7!1)*,<,6*7!-0 1 (*!7<(*; (-; !5-(2<,20!,*!(-70*(37!(*;!26 1 9(<8!R2,B,3,(*7!
(*;!2,B,3,(*!7<-)2<-)07!-0 1 (*!(<!)**02077(-\$!-,7.!6>!7)>>0-,* :8!;0(<'8!(*;!;07<-)2<,6*?T"#:!