

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

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! " # \$ % & ' (#####!"\$

) * + " , % - # \$. / " - , \$ % #####%"

) *) 0 1 2 3 4 5 2 6 7 8 0 9 : 3 0 # 3 4 ; 2 9 #####%"

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B*X*B" R 59320(H44LK057G0(5769596;7#####&>"
B*X*T0A37G320>QH5L69K057G0>P4;S32P3790;N0R;P37#####@&"
B*Y0 ' HL964L30 " 26030057G0\$9:320>P3286780" :5LL37830#####@("
B*Y*)0>7J62;7P379057G0%59H25L0#30;H2I3001;L6IK057G0#38HL59;2K0C25P3S;2[0#####@("
B*Y*E0" ' 56709235P6780;N0>7J62;7P379057G0%59H25L0#3\;H2I300 ' 57583P379#####@*"
]>%# ' ^,00H300679;0.3J3L;4P37901;L6I630057G012;825P P30#####@*"
B*Y*<0(9259386I0 ' 57583P3790;N0"L6P5930" :5783057G0\$ \ ;730 . 34L396780(H_0957I30#####@="
B*Y*B0D6;G6J32069K0" ;7032J596;7057G012;93I96;7#####@>"
B*Y*T" ' 57583P3790;N0%HIL3520#5G6596;70(;H2I30##### "?"
B*Y*X" >7J62;7P3795L0,7N;2P596;7M0>GHI596;7057G01H_L6I0 ! S5237300##### "?"
B*Y*Y" 1;09Z . 60509320%33G00 ! 00300P379##### "?"
B*Y*^" . 3_9057G0 . 3_90 ' 57583P379##### &"
B*Y*a" ' ;_6L6\6780N6757I65L0230;H2I300N;20G3J3L;4P379057G0I545I69K0_H6LG678##### @"
B*^" A; ;G0A;J32757I30590 ! LL0@3J3L0##### ="
T*+*01#\$A#>((0-\$R!#.(0A#!./!-\$,%#####("?"
X*+0"\$=>#>% ">0!%.0@,%b!A>(0R,-=-=>0E+<+0!A>%.!" "
!%.0\$-=>#0A@\$D!@01#\$">((>#####("%"
Y*+" -\$R!#.(0-=>0%>c-0@."0!A>%.!"#####@"
'*+" @>(((\$@>!#%>.0!%.0R!&0C\$#R!#.0\$%#####@"
, '1@>'>%-!-,,%\$0\$C0,1\$!0!%.0#>d/,#>'>%-(0\$C#####@"
-=>0%>c-0@."0!A>%.!"#####@"
!

-./0123!

C68H230B*)e0%596;75L0 ' 56\3012;GHI96;7057G0" :70HP496;70#3QH623P3790#####("
C68H230B*Ee0-237G0067062268596;70.3J3L;4P3790 K0.;LG6780#####="

C68H230B*)+e015000#59300_K0A37G320670A;J327P3790(I:;;L0#####&' "
C68H230B*)e0A1,0N;20(3I;7G52K0>72;LP3790!8567090>(,10,,0-528390#####&("
"\$%&'!();9+!<=1'&-03!>'?!<523%1#2-!@AB>!#-!C#33#2-! ! ! ! !!!!! !!!!!(*!
C68H230B*)<e0\$. !N0 ' 6LL6;700 ' 5L5S60b S5I:5#####*"
C68H230B*)Be0#3P69957I30M0P6LL6;70 / (0. ;LL520#####="

" 4 5 6 2 3!

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- !D@>(0B*)e0>W4;290?5LH300;N0-25G696;75L0";PP;G696300]/(f0',@@,\$%(^#####%)"
-5 L30B*E00:;S6780 ' 5L5S6U00G26J309;S52G00/%!.,.(0a+ea+ea+09528390#####&)"
-5 L30B*<e0!II3000L3J3L00N;20(5N30R5932057G0,P42;J3G0(5769596;7"#####&>"

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!\$"

4) 1789 : 3!

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4<84!!	!	4!2D#E!<- '&\$F!8 '\$%30!2&F!4 %!G2F!!
4HI ", 4!	!	4H&#E0-! I2-1#- '-103!"&'!', &0. '!4&'0!!
4H>C! !	!	4H&#E0-!>'5'32JD' -!C0-K!!
4LM4!!	!	4H&#E0-!L&2NIG!0- .!MJJ2&1% -#1F!4E1!!
40>B!!!	!	Acquired Immune Deficiency Syndrome
40P46!	!	4\$&#E%3!&O3!0-H&OQ1&%E1%&'!0- .!P2%1G!#-!4\$&#?%Q#- 'QQ!6&2R'E1!!
48I! !	!	4H&#E0-!8#QK! I0J0E#1F!!
48 ,! !	!	4-1#&'1&25#&O3! , G'&OJF!!
IC>! !	!	I2-5' -1#2-!2-!C#232\$#E03!>#5'&Q#1F!!
ISIB6!!	!	I2DJ'1#1#5' - 'QQ!0- .!S2?! I&'0!#2-!B%JJ2&1!6&2R'E1!
IMT<B4!	!	I2DD2-!T0&K'!H2&!<0Q1'&-!0- .!B2%1G'&-!4H&#E0!!
IBM! !	!	I#5#3!B2E# '1F!M&\$0-#U0!#2-!
>VB! !	!	>'D2\$&0JG#E!0- .!V'03!G!B%&5'F!!
>2IITB!	!	>'J0&1D' -!2H! I3#D01'! IGO-\$'!0- .!T'1'2&232\$#E03!B'&5#E'Q!!
>2<6>!	!	>'J0&1D' -!2H!<E2-2D#E!630- -#-\$!>'5'32JD' -!
>8T! !	!	>#QQQ1'&!8#QK! T0-0\$'D' -!!!
>B4! !	!	>'?!B%Q10#-0?#3!F!4 -03FQ#Q!!
>BM<8!	!	>#Q1&#E1!B101'!2H!<-5#&2-D' -!0- .!M%1322K!8'J2&1Q!
>, 44!!	!	>2%?3'!, 0=!452#.0-E'!4\$&' 'D' -!
>WBBB!	!	>'J0&1D' -!2H!W01'&!B%JJ3F!0- .!B0-#10!#2-!B'&5#E'Q!!
<4>! !	!	<-5#&2-D' -103!4HH0#&Q!>'J0&1D' -!!!
<C4! !	!	<5'&FIG#-\$!C%1!4&DQ!!
<C"! !	!	<=E3%Q#5'!C&'0Q1"'''.#-\$!!
<">! !	!	<3'E1&2-#E!"#QE03!>'5#E'Q!!
<0,0! !	!	<=1&0E1#5'!0- .%Q1&F! , &0-QJO&' -EF!0-#1#0!#5'!!
<6! !	!	<E2-2D#E!630- -#-\$!!
<BIMT!	!	<3'E1&#E#1F!B%JJ3F! I2&J2&0!#2-!2H! T030N#!
<B04! !	!	<-5#&2-D' -103!0- .!B2E#03!0DJ0E1!4QQ'QQD' -!Q!!
<B06! !	!	<. %E0!#2-!B'E12&!0-5'Q1D' -!630-0
<BT6!!	!	<-5#&2-D' -103!0- .!B2E#03! T0-0\$'D' -!630-Q!!
<BB6! !	!	<- '&\$F!B'E12&!B%JJ2&1!6&2R'E1!!
<A! !	!	<%&2J'0-!A-#2-!!
"48TB<!	!	"#-0-E#03!4EE'QQ!H2&!8%&O3! T0&K'!QX!BD033G23. '&!<-1'&J&#Q'Q!J&2R'E1!
">0! !	!	"2&'#\$-!>#&'E1!0-5'Q1D' -!!!
"0B6! !	!	"0&D!0-J%1!B%?Q# .F!6&2\$&0DD'!!
", 4! !	!	"&'!', &0. '!4&'0!!
"P! !	!	"#-0-E#03!P'0&!!
LCY! !	!	L'-. '&!C0Q' .!Y#23' -E'!!
L>6! !	!	L&2QQ!>2D'Q1#E!6&2. %E1!!
L<"! !	!	L32?03!<-5#&2-D' -!!"0E#3!F!!
L<8! !	!	L&2QQ!<-&23D' -!801'!!
L60! !	!	L'-. '&!60F!0- . '=!
VI" I!!	!	GF. &2EG32&2H32%&2E0&?2-Q!
V<BZLC!	!	V#\$G'&!<. %E0!#2-!B1%. ' -!Q[!Z20-Q!0- .!L&0-!Q!C20& .!!

V0Y

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\$!"

TBT <! !	T#E&2X!BD033!0- .!T' .#%D!<-1'&J&#Q'Q!
TAB,!! !	T030N#!A-#5'&Q#1F!2H!BE#' -E'!0- .!, 'EG-232\$F!!
TY4 I! !	T030N#!Y%- ' &0?#3#1F!4QQ'QD' -! I2DD#11' '!!
TW! ! !	T '\$0!W011Q!
/ 464!! !	/ 01#2-03!4 .0J!01#2-!6&2\$&0DD'Q!2H!4E1#2-!
/ I6! ! !	/ 01#2-03! I2-!0E1!62#-!Q!!
/ <8! ! !	/ '1!<-&23D' -!801'!!
/ <B! ! !	/ 01#2-03!<=J2&1Q!B1&01' \$F!!
/ <B6! ! !	/ 01#2-03!< .%E01#2-!B'E!2&!630-!!
/ LMQ!! !	/ 2-]L25' &-D' -!03!M&\$0-#U01#2-Q!
/ 0I <! ! !	/ 01#2-03!0-#1#01#5' !H2&! I#5#E!< .%E01#2-!!
/ 06! ! !	/ 01#2-03!0DJ3' D' -!01#2-!630-!!
/ 06! ! !	/ 01#2-03!0- .%Q1!623#EF!!
/ 6I! ! !	/ 01#2-03!630- -#-\$! I2DD#QQ#2-!
/ 8C! ! !	/ 01#2-03!8' \$#Q1&01#2-!C%&'0%!!
/ 8B! ! !	/ 01#2-03!8' Q#3#-E' !B1&01' \$F!!
/ BM! ! !	/ 01#2-03!B101#Q1#EQ!MHH#E' !
/ BB6! ! !	/ 01#2-03!B2E#03!B#JJ2&1!623#EF!!
/ , " I!! !	/ 01#2-03! , &0. '!"0E#3#101#2-! I2DD#11' '!!
/ W84! !	/ 01#2-03!W01' &!8' Q2%&E' Q!4%1G2F!
M>4! ! !	MHH#E#03!>'5'32JD' -!4QQ#Q10-E'!!
M>Z! ! !	MJ' -!0- .!>#Q10-E' !Z'0&-#-\$!
M>B! ! !	MU2- '!'>'J3'1#-\$!B%?Q10-E'Q!
M>"! ! !	MJ' -!'>'H'E01#2-!'&' '!
MBC6! ! !	M- 'JB12J!C2& . '&!62Q1!
MBBI!! !	M- 'JB12J!B' &5#E' !I' -1&'!!
6>/4!! !	62Q1]>#Q0Q1' &! / ' ' .Q!4QQ'QD' -!!!
6<6! ! !	62Q1]<=J2Q%&'!6&2JGF30=#Q!!
6<W! ! !	623#1#E03!<DJ2N' &D' -!2H!W2D' -!!
6ZV0Y! !	6'2J3' !Z'05#-\$!W#1G!V0Y!
6T, I, ! !	6&'5' -1#2-!H&2D!T21G' &!12!IG#3.!, &0-QD#QQ#2-!!
6M6! ! !	6'&Q#Q1' -!M&\$0-#E!6233%10-!Q!!

BT6! ! ! BEG223! T '03Q!6&2\$&0DD'!!
B /<! ! ! BJ'E#03! / ' '.Q!<.%E01#2-!!
,4! ! ! ,&0.#1#2-03!4%1G2F!

;<=! .8"17>0)".78

!

T030N#!0Q!0!D'D?'&!2H!1G'!#-1'&-01#2-03!E2DD%-#1F!#Q!0!Q#\$-012&F!12!50%Q!#-1'&-01#2-03!0- .!
\$32?03!E2DD#1D'-1Q)!Z#K'!2!G'&!Z'0Q!>'5'32J' .! I2%-1&# 'Q!@Z> IQ_!NG#EG!0&'!D'D?'&Q!2H!1G'!
A-#1' .! / 01#2-QX! T030N#!0.2J1' .!1G'!0Q!0-?%3!6&2\$&0DD'!2H!4E1#2-!@0624_!H2&!Z'0Q!>'5'32J' .!
Z> IQX!H2&!1G'! . 'E0. '!9` ; ;]

3#-K0\$'Q!N#1G!IG'!9`b`!4\$'-.0!0-.!2!G'&!\$32?03!J&2E'QQ'Q!NG#3'!IG0J1'&!d!QG2NQ!J30-Q!12N0&.Q!
IG'!-'=I!Z>I!4\$'-.0)!IG0J1'&!e!QG2NQ!Z'QQ2-Q!Z'0&-'.!0-.!W0F!'2&N0&.!2-!0DJ3'D'-!0!#2-!
2H!06M4!0-.!&'7%#&'D'-!Q!2H!IG'!-'=I!Z>I!0\$'-.0!

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?<=<!"@2!84".78!>2A267B:28"!B6488.8/!B17)233!

!

,G'!-0!#2-03!.'5'32JD'-!J&2E'QQ!#-!T030N#!#Q!QJ'0&G'0.'!?'F!IG'!/0!#2-03!630--#-\$!
I2DD#QQ#2-!@/6I!_!NG#EG!N0Q!'Q10?3#QG'.!00EE2&.#-\$!12!IG'!60&3#0D'-!4E!(-2)!;9!2H!9` ;dX!,G'!
/6I!N0Q!'Q10?3#QG'.!0Q!0!?'2.F!%-.'&!IG'!I2-Q!#1#2-!2H!T030N#!12!@0_!'-Q%&'!#1Q!J'&D0'-EF!
0-.!IG'!'HH#E#'-!1!0-.!'HH'E!#5'!#DJ3'D'-!0!#2-!2H!#1Q!H%-E!#2-QX!0-.!@?'_!&'#-H2&E'!#1Q!0%1G2F!0Q!
0-!#-.'J'-.!-!0\$'-EF!&'QJ2-Q#?3'!H2&!Q1&0!'\$#E!J30--#-\$!H2&!-0!#2-03!.'5'32JD'-!1!#-!T030N#!

,G'&'H2&'!IG'!/6I!#Q!D0-.0!'.!12!#.-!#HF!T030N#[Q!Q2E#2'E2-2D#E!.'5'32JD'-!J#Q!0-.!
H2&D%301'!-0!#2-03!5#Q#2-Q!0-.!Q1&0!'\$#Q!H2&!Q2E#03!0-.!'E2-2D#E!\$203Q!10K#-\$!#-12!0EE2%-!1!IG'!
E2%-1&F!Q!&'Q2%&E'!J2!'-!#03!0-.!E2DJ0&0!#5'!0.50-10\$')!I&&&-13F!0E!#5!#1#Q!%-.'&!IG'!0624!0&'!
?'#-\$!#DJ3'D'-!1'!.!IG2%\$G!IG'!H#5'!F'0&!-0!#2-03!Q1&0!'\$F!IG'!T030N#!L&2N!IG!0-.!>'5'32JD'-!
B1&0!'\$F!@TL>B!000!NG#EG!QJ0-Q!H&2D!9` ;d!12!9`99)! ,G'!IG'D'!H2&!IG'!TL>B!000!#Q!12!?'%#3.!0!
J&2.%E!#5'X!E2DJ'!#1#5'!0-.!&'Q#3#'-!-!0!#2-)! ,G#Q!D'.#%D!1'&D!.'5'32JD'-!Q1&0!'\$F!GOQ!
.2D'Q!#E01'!.!0-.!32E03U'!.!#-1'&-0!#2-03!E2DD#1D'-!Q!Q%EG!OQ!IG'!B%Q!0#-0?3'!>'5'32JD'-!
L203Q!@B>L!4\$'-.0!9`b`X!IG'!4A!4\$'-.0!9`cbX!IG'!0Q!10-?'%3!6&2\$&0DD'!2H!4E!#2-!@0624_!0-.!
IG'!Y#'-!-0!6&2\$&0DD'!2H!4E!#2-!@Y624_!1E)! ,G'!TL>B!000!2J'&0!#2-03#U'Q!IG'!32-\$!1'&D!
. '5'32JD'-!1!0QJ#&0!#2-!2H!IG'!E2%-1&F!E033'!.!IG'!Y#Q#2-!9`9`!0!1'.!H#-'Q!-0!#2-03!\$203QX!J23#E#Q!
0-.!Q1&0!'\$#Q!0-.!#Q!'=J'E!'.!12!#DJ&25'!. '5'32JD'-!D0-0\$'D'-!1!OQ!#!!2%13#-'Q!N'03!G!2H!
#-H2&D0!#2-!0?2%1!NG0!10&\$'!Q!T030N#0-Q!N2%3.!3#K'!12!D''!1)!
!

C<=! 433233 : 28"! 7 -! B17 / 1233! 48>!)@46628 / 23! .8! "@2!
. : B62 : 28"4".78! 7 -! "@2! .3"48506! B17 / 14 : : 2! 7 -! 4)" .78!
- 7 1!"@2!>2) 4>2!D=;;!E!D=D=!

!

L:@! +-&46*\$2/!5#3#*\$B!

!

T030N#[Q!&'03!L&2QQ!>2D'Q!#E!6&2.%E!@L>6_!\$&2N!IG!H2&!9` ;e!#Q!D0#-10#-'!0!(!)`!J'&E'-1X!?'%1!
IG'!\$&2N!IG!'Q!#D01'!H2&!9` ;*!N0Q!&'5#Q'!.!%JN0&.Q!H&2D!();!J'&E'-!1!12!:)`!J'&E'-!1!#-'!?'&%0&F!
9` ;*)! ,G'!&'5#Q#2-!#-!IG'!L>6!\$&2N!IG!H#%\$&'Q!N'&'!011&#?'%1'.!12!50%Q!&'0Q2-Q)! "2&'=0DJ3'X!
NG#3'!IG'!>'J0&1D'-!1!2H!I3#D01'!IG0-\$'!0-.!T'1'2&232\$E03!B'&5#E'Q!@>2IITB!_H2&'E0Q1'!.!<3!
/#-2!E2-.#1#2-Q!H2&!IG'!9` ;eg;*!&0#-F!Q'0Q2-X!NG#EG!N'&'! '=J'E!'.!12!G05'!0!-'\$0!#5'!'HH'E!12-!
0\$&#E%31%&03!J&2.%E!#2-X!IG'!E2%-1&F!&'E'5'!.!\$22.!&0#-H033X!NG#EG!#Q!'=J'E!'.!12!#-E&'OQ'!
0\$&#E%31%&03!J&2.%E!#2-!#-!03D2Q!033!E&2JQX!&'Q%31#-\$!#-!0!&'?2%-!.!#-!0\$&#E%31%&03!J&2.%E!#2-)! ,G#Q!
#Q!'=J'E!'.!12!#-E&'OQ'!.#QJ2Q0?3'!#-E2D'!0-.!'D0-.!H2&!J&2.%E!Q!0-.!Q'&5#E'Q!H&2D!2!G'&!
Q'E!2&Q!2H!IG'!'E2-2DF)!I2-Q#.'&#-\$!IG0!T030N#!#Q!0-!0\$&2]?'0Q'!. 'E2-2DFX!0!&'?2%-!.!#-!
0\$&#E%31%&'!#Q!0%12D0!#E033F!1&0-Q301'!.!#-12!G#G'&!25'&033!L>6!\$&2N!IG)!!

&"

"

,G'!H052%&0?3'!N'0IG'&!E2-.#1#2-Q!0- .!2IG'&!#-1'&5'-1#2-Q!Q%EG!0Q!IG'! T030N#]h0D?#0!J2N'&! # -1'&E2--'E1#2-!J&2R'E1!G05'!Q10?#3#U' .!IG'!E2%-1&F[Q!J2N'&!Q%JJ3F!Q#-E'!IG'!?'\$#- -#-\$!2H!9` ;*)! 0-!IG#Q!&'\$0& .X!0J0&1!H&2D!\$22 .!J'&H2&D0-E'!2H!IG'!0\$&#E%31%&'!Q'E12&X!IG'!&'03!L>6!\$&2N1G!2H! :)`! J'&E'-! H2&! 9` ;*! #Q! %- . 'J#--' .! ?F! \$&2N1G! #-! .#HH'&' -! 'E2-2D#E! 0E1#5#1#'Q! #-E3% .#-\$! T0-%HOE1%&#-\$a! <3'E1&#E#1FX! L0Q!0- .!W0!'&!B%JJ3Fa! I2-Q1&%E!#2-a! ,&0-QJ2&10!#2-!0- .!B12&0\$'a! 0- .!0-H2&D0!#2-!0- .!I2DD%-#E0!#2-)! !

T030N#!G0Q!D0. 'Q!#& . 'Q!#-!#-E&'0Q#-\$!0\$&#E%31%&03!J&2. %E1#5#1F!IG&2%\$G! . '5'32JD' -!2H! / 0!#2-03! B'' .!623#EF)! ,G'!J23#EF!G0Q!?''-!30%-EG' .!#-!9` ;e!|2!J23-!' -140.1(21)0.2(593.7694c1)0.2()J T J E T 593.7694

1G&' '#- . 'J' - . -!J2N'&!J&2 . %E' &Q!@066Q_!12! . '5'32J!0!12!03!2H! ; ; e! TW!\$&# . !E2-- 'E1' . !B230&! 62N'&!J30-1Q)! , G'Q'!6&2R'EIQ!0&'! '=J'E1' . !12!E2-1&#?%1'!12!1G'!&'3#0?#3#1F!0- . !7%03#1F!2H!J2N'&! Q%JJ3F!#- !1G'!E2%-1&F)!!

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"%&1G'&D2&'X!1G'!E2%-1&F!G0Q!03Q2!D0 . '!J&2\$&'QQ!#-!' -Q%&#-\$!1G0!1G'!E2%-1&F!#Q!N'33!E2-- 'E1' . ! N#1G!#1Q!- '#\$G?2%&Q!0Q!J22&!1&0-QJ2&10!#2- !H0E#3#1# 'Q!E2-1&#?%1'!12!G#\$G!E2Q!2H! '=J2&1Q!0- . !#DJ2&1Q! #-! T 030N#)! T 030N#! . 'J' - . !D2&'!2-!&20 . !0- . !&0#3!1&0-QJ2&1!#-!2& . '&!12!Q' - . !0- . !&'E'#5'!\$22 . Q! 1G&2%\$G! T 2U0D?#7% 'X! , 0-U0-#0X!h0D?#0!0- . !B2%1G!4H&#E0)!0-!2& . '&!12!'0Q'!D25'D' -!2H!\$22 . QX! T 030N#!E2-Q1&%E1' . !0!&0#3N0F!1G0!E2-- 'E1Q!#1!N#1G!IG#J010X!h0D?#0!#-!9` ; `!NG#EG!#Q!#-!3#- 'N#1G! B4 > I!&0#3N0F!&' \$#2-03!Q10- . 0& . Q)! "%&1G'&D2&'X!#-!9` ; ; !0! - 'N!&0#3N0F!3#- 'N0Q!E2-Q1&%E1' . !?F! Y033'F! Z2\$#Q1#EQ! Z#D#1' . !E2-- 'E1#-\$! T 201#U#! D#- '!'#-! T 2U0D?#7% 'N#1G!1G'! '=Q1#-\$! &0#3N0F! - '1N2&K!#-! T 030N#!H2&!1G'!D25'D' -!2H!E203!12! / 0E030!J2&1!#-! T 2U0D?#7%')!!

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L:H! M9-%*6(\$6- /C! ,&&4!0/*6-%\$B!# ' 4!-6-#(14/2/(&37 / '\$

L:H:@!)&&4!0/*6-%\$B!!

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)%96-!/L:@N!''#\$%&'#(!D#%0/!+-&46*\$%&'!#'4!5&'0673\$%&'!K/P6%-/7/'\$0!

!!!!!!!!!!!!!!!!!!!!E&6-*/N!M+8E!#'4!''#\$%&'#(!)&&4!<#(#'*/!EJ//\$0G!H?@I!

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L:H:H! K6-#(!1/2/(&37/'\$!

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0-!' -Q%&#-\$!IG01!&%&03!O&'0Q!O&'! -2!3'H1!?'G#- .!#-!1'&DQ!2H! . '5'32JD' -IX!IG!'E2%-1&F!IG&2%\$G!
B%Q10#-0?3'! 8%&03! W01'&! 0- .! B0-#101#2-! #-H&0Q1&%E1%&'! J&2R'E1X! E2-Q1&%E1' .! 9cc! Q0-#101#2-!
HOE#3#1#'Q!0- .!.!' .!(: `! ?2&'G23'Q!0E&2QQ!IG!'E2%-1&F)!, G#Q!#-E&'0Q' .!IG!'-%D?'&!2H!J'2J3'!E3'0-!

32E03#U' .! 01! Q%?-01#2-03! 3'5'3! 1G&2%\$G! 32E03! 3'5'3! . '5'32JD' -! J30-Q)! , G#Q! #Q! #-! J&2D21#2-! 2H!
. 'E' -1&03#U01#2-! .' !1G01! 'DJ2N' &Q! 1G' !J' 2J3' !12!% - . '&10K' !1G' #&! 2N-! EG2#E' !2H! J&2R' E1Q)!
!
, G'! \$25' &-D' -! 1G&2%\$G! T 2ZL8 >! . '5'32J' .! 50%Q! #-1'&5' -1#2-Q! #-! J&2D21#-\$! Z2E03!
<E2-2D#E! >'5'32JD' -! @Z<>_)! Z<>! E2-1&#?%1'Q! 12! #-1'\$&01' .! &%&03! . '5'32JD' -! 1G&2%\$G!
Q1#D%301#-\$! .#5' &Q#H#E01#2-! 2H! 1G' ! 'E2-2D#E! ?0Q'X! ?%#3.#-\$! ?0EKN0& .! 0- .! H2&N0& .! 3#-K0\$'QX!
'-Q%&#-\$! ?0Q#E!Q10- .0& .Q!2H!Q2E#03!Q' &5#E' Q!1G&2%\$G!J&25#Q#2-!2H! ?0Q#E!#-H&0Q1&%E1%&'!0- .!Q' &5#E'QX!
D0=#D#U#-\$!R2?JE&'01#2-!0- .! ?%#3.#-\$!2-!050#30?3'!'DJ32FD' -!2JJ2&1% -#1# 'Q!#-!32E03!0&'0Q)!Z<>!
2HH' &Q!32E03!\$25' &-D' -1QX!E22J' &01#-\$!J0&1- '&QX!1G' !Jǵ'!Q' E12&X! -2-]J&2H#1!2&\$0-#U01#2-Q!0- .!
32E03! E2DD% -#1# 'Q! 0-! 2JJ2&1% -#1F! 12! #-1'\$&01' !1G' #&! 'HH2&1Q! 12! #DJ&25' !1G' !32E03! 'E2-2DF)! 01!
'-G0-E'Q!E2DJ' 1#1#5' -'QX!J&2 .%E1#5#1FX!0- .!N'031G!E&'01#2-!H2&!Q%Q10#-0?3'!'E2-2D#E!\$&2N1G)!
!
0-!0-!011' DJ! 12! 0EE'3'&01' !1G' !&%&03! . '5'32JD' -!0- .! E2-1&#?%1' !12N0& .Q! J25' &1F! &' .%E1#2-X!
T 2ZL8 >!

H0&D#-\$)! , G'!Q'E12&!03Q2!#DJ3'D' -1' .!0! -%D?'&!2H!#-#1#01#5'Q!J&2D21#-\$!N2D' -!'DJ2N'&D' -!
N'&'!#DJ3'D' -1' .)"2&'! '=0DJ3'X!'DJ2N'&#-\$!H'D03'!3'0.!H0&D'&Q!0- .!' -Q%&#-\$!'7%#10?3'!0EE'QQ!
2H!0\$&#E%31%&03! 'EG-232\$#'Q!12!IG'!5%3- '&0?3'X!J22&'Q!10- .!V0Yg40>B!0HH'E1' .!J'2J3')!!

!!!!!!!!!!!!)96-!/L:HN!U-/'40!%'!%--%9#\$\$&'!1/2/(&37/'\$!FB!J&(4%'90!

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!!!!!!!!!!!!E&6-*/N!1/3#-\$7/'\$!&,T--%9#\$\$&'!K/3&-\$0!H?@V!

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,G'!Q'E!2&!G0Q!03Q2!&'G0?#3#101'!.!IG'!H2332N#-\$!QEG'D'Q+!T0Q'-R'&'!@;9:!'G0_X!V0&0!@9b`!G0_X!
W25N'!@(;d!G0_X!C%0!@b`!G0_X!h%D%30!4!@;`!G0!_!0-!.!T0-!G#D?0!@; ;b!G0_)!4!12!03!2H!9X:*`!G0!
G05'!03Q2!?'-'!&'G0?#3#101'!.!E25'&#-\$!IG'!H2332N#-\$!\$25'&-D'-!BEG'D'Q+!Z#DJG0Q0X!Z#K0-\$030!
I2DJ3'=X!TKG01'X!T%2-0X!\GN#Q0X!>2D0Q#X!\02D?'X!IG2-0-\$0!0-!.!T#F2D?2X!TEG'&'X!
T?'-.'&0-0!4!0-!.!T?'-.'&0-0

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9` ;*!#Q!QG2N-!?'32N!0- .!#1!#-E3% . 'Q!1G'!J'&H2&D0-E'!2H! T 030N#!#- !0&'0Q!2H!#- .%Q1&F!0- .!Jǵ'!
Q'E!2&! . '5'32JD' -!!.%&#-\$!1G'!J'.!%- . '&!&'5#'N)!

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L:>:@! ; 2/-#(!U-#4!/!+/-,&- 7#'*/

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E2-1#-%'Q!12!?'!G#\$G3F!E2-E'-1&01' .!N#1G!0!H'N!J&2.%E1Q!N#1G!12?0EE2!032-'!0EE2%-1#-\$!H2&!D2&'!
1G0-!(^!J'&E'-1!2H!1G'!E2%-1&F[Q! '=J2&1Q!@Q' '!"#\$\$%&'!():_!!

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)TQYK8!L:SN!DM.MRT]E!DM` ; K!8Z+ ; KUE!ET" 5 8!H?@L![Da]!DT. .T ; "E^

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)TQYK8!L:AN!DM . MRT]E!DM` ; K!TD+ ; KUE!ET" 5 8!H?@L![Da]!DT. .T ; "E^!

!'"#\$%&N!TU5!U-#4/!7 #3!4#\$#G!H?@V!

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L:>:>! D#(#C%]0!D#_&-!U-#4%'9!+#-\$' /-0

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B#-E'!9` ; cX!B 4 > I!G0Q!?' ' -!0!D0R2&!Q2%&E'!2H! T 030N#[Q!#DJ2&1Q!0D2%-1#-\$!12!D2&'!1G0-!AB>!

:(;!)

L:>L! U-#4/!M9-//7/'\$0

N#1G! 1G'#&! E2%-1'&J0&1Q! H&2D! 1G'! 21G'&! E2%-1&# 'Q)! , 2! 1G0! 'HH'E1X! 1G'! \$25'&-D' -! #Q! 1&0#-#-\$!
2HH#E'&Q! 0- .! E2-Q1&%E1#-\$! HOE#3#1# 'Q! 0! TEG#-R#! ?2& . ' &! J2Q! N#1G! 1G'! H%- .#-\$! 2H! 1G'! 4H&#E0-!
>'5'32JD' -!C0-K!@4H>C_)!!

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=>?>@! 5&(#+A!B'\$.27.'\$%&'*!

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L2T!G0Q!25'&!1G'!J0Q!F'0&Q!%- . '&10K' -!Q'5'&03!J23#EF!#-1'&5' -1#2-Q!0Q!J0&1!2H!J&2D2!#-\$!
0E1#5#1# 'Q!%- . '&10K' -!F!50%Q!Q'E12&Q!0Q!H2332N!Q+!!

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L:>:A:@!M33-&2#(!&,\$J!/D%*-&G!E7#(!# '4!D/4%67!8 '\$/-3-%0/0![DED8^!+&(%*B!

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M-! ; (&S! "'?&%0&FX! 9` ; *X! \$25'&-D' -! 0JJ&25' .! 1G'! T#E&2X! BD033! 0- .! T' .#%D! <-1'&J&#Q'Q!
&TBT<_!J23#EF)! , G#Q!#Q!0!Q#-\$-#H#E0-! . '5'32JD' -!#-!1G'! TBT<!Q'E12&!0Q!1G'!J23#EF!0#DQ!0!
0. .&'QQ! ?2113'! - 'EKQ! OHH'E1#-\$! #Q! . '5'32JD' -!1)! , G'! Q'E12&! G0Q! 1G'! J21' -1#03! 12! J&2D21'!
'-1&'J&' - '%&QG#JX!NG#EG!#Q!0!Q' . !H2&!#- . %Q1#Q01#2-)!0-!0-!'-0?3#-\$!' -5&2-D' -!X! TBT<Q!E0-!
E&'01'!R2?QX!1&0-QH'&! D2 . ' &-!1'EG-232\$#E03! QK#33QX! H2Q1'&!#- -2501#2-!0- .! '-G0-E'!#-1'&-01#2-03!
E2DJ'1#1#5' - 'QQ! B#EE'QQH%3! TBT<Q! G05'! 1G'! J21' -1#03! 12! %J3#H! N2D' -X! 1G'! F2%1G! 0- .!
D0&\$#-03#Q' . ! \$&2%JQ!H&2D!J25'&1F)!

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L:>:A:H!1/2/(&37 / '\$!& ,!T'2/0\$7 / '\$!# '4!8=3&-\$!+-&7&\$%&'!<%(!

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L25'&-D' -!#Q!QJ'0&G'0.#-\$! . '5'32JD' -!2H!0-5'Q1D' -!0- .!<=J2&1!6&2D2!#2-!@0<6_!C#33!NG2Q'!
0#D!#Q!12!Q1&'-\$!G' -!1G'!3'\$#Q301#5'!H&0D'N2&K!2H! T030N#10-5'Q1D' -!0- .! , &0 . 'I' -1'&!@T0 , I_!
0- .!D0K'!#Q!D0- .01'!D2&'!&2?%Q1)!A- . '&1G'! - 'N!C#33X! T0 , I!N#33!G05'!0!Q1&2-\$'&!D0- .01'!2H!
#-5'Q1D' -!0- .! =J2&1!J&2D2!#2-!0- .!HOE#3#101#2-!1G01!%- . '&1G'!E%&&' -!1?#33)! , G'!J&25#Q#2-Q!#-!1G'!
- 'N! ?#33! #-E3% . ! 'Q10?3#QG#-\$! 1G'! ?20& .! 0- .! D0-0\$'D' -! 2H! 1G'! E' -1&'X! Q'11#-\$! %J! #Q!
0 . D#-#Q1&01#5'!Q1&%E1%&'!0- . !H%- .#-\$!H&0D'N2&K)!0QQ%'Q!2H!&'\$#Q1&01#2-!2H!#-5'Q12&Q!0- .! =J2&1'&Q!
G05'!03Q2!?' -!10EK3' .!#-!1G'! ?#33!0Q!N'33!0Q!#QQ%'Q!2H!0EE'QQ!0- .!0 . D#-#Q1&01#2-!2H!#-E' -1#5'Q!
4D2-\$!21G'&QX!1G'! ?#33!Q' 'KQ!12!&'J'03!1G'!0<6!4E!0- .!1G'!<=J2&1!0-E' -1#5'Q!4E!mI0J)!b*+` (n)!
, G'! ?#33!#Q!E%&&' -13F!0!1G'! I0?#- '1! I2DD#11' '!'3'5'3!0- .!N#33X!1G'&'H2&'X!Q22-!?'!E2-Q# . '&' .!H2&!
0JJ&2503)!

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L:>:A:>!+-&7&\$%&'!& ,! . /#\$J/ -!+-&46*\$0!

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L2T!#Q!03Q2!#DJ3'D' -1#-\$! /01#2-03!Z'01G'&!Y03%'!IG0#-Q!B1&01'\$F!H&2D!9` ; :!12!9`9(!0-!
0. .#1#2-X!#-!>'E'D'?&!9` ; :X!T20 , , !H&2D!IMT<B4!8'\$#2-03!0-1'\$&01#2-!B#JJ2&!T'EG0-#QD!
&80BT_!J&2\$&0DD'!HOE#3#101' .! . '5'32JD' -!2H! , '=1#3'Q!0- .!L0&D' -!Y03%'!IG0#-Q!B1&01'\$F!
NG#EG!Q' 'KQ!12!&'50DJ!1G'!Q'E12&)! , G'!1N2!Q'E12&Q!0&'!E#E03!12!D0-%HOE1%&#-\$!0- .!503%'!
0. .#1#2-!0Q!'QJ2%Q' .!#-!1G'! /01#2-03!0- . %Q1#Q01#2-!B1&01'\$F!NG#EG!0E1%03#Q#-\$!1G'!R2?!E&'01#2-!
. '! ?F! L25'&-D' -!1)! , G'! T030N#! <-1'&J&#Q'! 6&2 . %E1#5#1F! <-G0-E'D' -! @T<6<_! 6&2R'E!
#DJ3'D' -1' .!#- . '&!1G'! IMT<B4]80BT!6&2\$&0DD'!G0Q!%#3!J&2 . %E1#5'!E0J0E#1F!H2&!TBT<Q!

"

0- .!E22J'&01#5'Q!#-!1G'!1N2!Q'E12&Q!#-!0. .#1#2-!12!1G'!2#3]Q' ' .!Q'E12&!)B2!H0&X!1G'!J&2R'E1!G0Q!
Q%JJ2&1' .!TBT<Q!0- .!E22J'&01#5'Q!N#1G!Q'N#-\$!'7%#JD' -1X!3'01G'&!J&2. %E1Q!D0K#-\$!'7%#JD' -1X!
2#3!E&%QG#-\$X!&'H#-#-\$!0- .!21G'&!1223Q!#-E3% .#-\$!30?2&012&F!'7%#JD' -1)!T'D?'&Q!2H!E22J'&01#5'Q!
G05'!Q1'0. #3F!?' ' -!\$0#-#-\$!\$&2%- .!#-!H#- .#-\$! .2D'Q1#E!D0&K'!Q!?!0&'!F'!12!&'\$#Q1'&! '=J2&1!
1&0. ')!

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4EE2&. #- \$!12!1G'! / 01#2-03!Z'01G'&!Y03% ' ! I G0#-!B1&01'\$F!@9` ; :_X!1G'!3'01G'&!Q'E12&!G0Q!J21' -1#03!
12!Q#\$-#H#E0-13F!E2-1&#?'%1'!12! 'E2-2D#E!\$&2N1G!2H!1G'!'E2-2DF)!C0Q' .!2-!#1Q!0-#D03!&'Q2%&E'!
?0Q'!2H!\$201QX! ?25#- ' ! 0- .!QG' 'JX!1G'!503% ' ! EGO#-!G0Q!J21' -1#03!2H!\$&2QQ#-\$!AB>; `9!D#33#2-!
.2330&Q!#H!033!G#. 'Q!0- .!QK#-Q!J&2. %E' .!#-!T030N#!0&'!J&2E'QQ' .!#-12!H#-#QG' .!J&2. %E1Q!0!#QX!
1G'&'H2&'X!'Q1#D01' .!1G0!01!H%33!J21' -1#03!2J1#D#Q01#2-X!1G'!503% ' ! EGO#-!E2%3 .!E2-1&#?'%1'!0?2%1!b)*!
J'&E' -1!12!1G'!L>6)!

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L:>:A:L!1/2/(&37/'\$&,!D%*-&G!E7#((!#'4!D/4%67!8 '\$/-3-%0/!<%(!

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N#1G!J30-1#-\$!D01'Q!0- .!H'&1#3#U'&Q)!, G&2%\$G!Q' ' .!Q'3'E1#2-!0- .!D%31#J3#E01#2-X!1G'!Q'E12&!G0Q!
#DJ&25' .!J&2.%E1#2-!3'5'3Q!2H!1G'!H2332N#-\$!E&2JQ!@#-!D#33#2-Q!2H!D'1&#E!12-Q!1&'D' - .2%Q3F!0Q!
H2332NQ+!&#E'!@`bd*!D1_a!E0Q0050!@;`)*d!D1_a!Q2F0!?'0-Q!@`);e9!D1_a!\$&2%- .-%1Q!@9)9b9!D1_a!
J#\$'2-!J'0Q!@c)dc*!D1_a!?'0-Q!@`e9!D1_a! , G'Q'!J&2.%E1#2-!3'5'3Q!0&'!N'33!0?25'!1G'!9` ;9!?'0Q'!
3#-'Q!2H!&#E'!@`)*`*!D1_a!E0Q0050!@()c!D1_a!Q2F0!?'0-Q!@`);!D1_a!\$&2%- .-%1Q!@`)(!D1_a!J#\$'2-!J'0Q!
@`9b!D1_a!?'0-Q!@`);b!D1_a!

!

0-!9` ;e!1G'!E2%-1&F[Q!1&0 . '!?'030-E'!#DJ&25' .!?'F!9;)d!J'&E'-1X!12!0!503%'!2H!AB> ;X; :9)(!D#33#2-!
H&2D!AB> ;X: :);)!D#33#2-!#-!9` ;d) , G#Q!#Q! '=J30#- .!?'F!#-E&'0Q'Q!#-!1&0 .#1#2-03! '=J2&1!J&2.%E1Q!
'QJ'E#033F!Q%\$0&X! ' .#?3'! -%1Q! 0- .!12?0EE2!1G0! \$&'N! ?F! ec)c! J'&E'-1X!9*);! J'&E'-1X! 0- .!c)c!
J'&E'-1X!&'QJ'E!#5'3F!#-!1G'!F'0&!9` ;e)!0-!9` ;*! T 030N#[Q!1&0 . '!?'030-E'!#Q! '=J'E! ' .!12!N2&Q' -!?'F!
;c)(!J'&E'-1)! , 0?3'!(;)! ?'32N! QG2NQ! 1G0! 033! 503%'Q! 2H! 1&0 .#1#2-03! '=J2&1! J&2.%E1Q! 0&'!
0-1#E#J01' .!12!\$2! .2N-!#-!9` ;*)M-!1G'!2!1G'&!G0- .X! T 030N#[Q!#DJ2&1Q!#DJ&25' .!?'F!d)9!J'&E'-!
'?1N' '-!9` ;d!0- .!9` ;eX!0- .!#1!#Q!0-1#E#J01' .!1G0!1G'F!N#33!#-E&'0Q'!?'F!()*!J'&E'-!1#-!9` ;*) , G#Q!
#Q!#33%Q1&0! .!?'F!0!H2&'E0Q1' .!#-E&'0Q'!#-!1G'!E2%-1&F[Q!D0#-!#DJ2&1!J&2.%E1Q!'QJ'E#033F!J'1&23!0- .!
J'1&23!J&2.%E1Q!1G0!0&'!'Q!#D01' .!12!\$2!%J!?'F!(!J'&E'-1X!03Q2!H'&1#3#U'&!#DJ2&1Q!0&'!'=J'E! ' .!12!
#-E&'0Q'!?'F!;!J'&E'-1)!C%1!1G'!&#Q'!#-!#DJ2&1Q!523%D'Q!2H!D0#-!#DJ2&1!J&2.%E1Q!G0Q!?' '-!Q%?.% .!
'?F!Q10?3'!J&#E'Q!#-!1G'Q'!J&2.%E1Q!

!

UM< . 8!L:@N!8Z+ ; KU!bM. Y8E! ;)!UKM1TUT ; "M. !5 ; DD ; 1TUT8E![YEc!DT. . T ; "E^!

5 & 7 7 & 4\$B!	H?@W!	H?@V!	H?@I!
, 2?0EE2!	(eb)e`!	: ; c)`*!	: `9); *!
, '0!	dd);c!	c9)dc!	c9)dc!
B%\$0&!	(`)(d!	d:);;!	db)(*!
I 2!12-!	b): (!	()`(!	() ; `!
I 2HH' '!	9):9!	():(!	d);;!
6%3Q'Q!	b)c`!	;9):(!	;9)9c!
< .#?3'! / %1Q!	b()c:!	(()ec!	(;)9c!

!

L:L:@! 8'J#'*/4!M9-&X+ -&*/00%'9

!

<-G0-E' .!0\$&2]J&2E'QQ#-\$!E0J0E#1F!G0Q!?' '-!0EG# '5' .!1G&2%\$G!1G'!E2-Q1&#E1#2-!2H!Q'5' -!Y03%'!
4 . .#1#2-! I' -1&'Q! NG'&'! 0\$&2]J&2E'QQ#-\$! D0EG#-'Q! G05'! 03Q2! ?' '-! #-Q1033' .! #-! \ 0&2-\$0X!
/ K2G012K210X! B03#D0X! T 0EG#-\$0X! I G#KN0N0! 0- .! / Q0-R'! .#Q1&#E1Q)! 4\$&2! J&2E'QQ#-\$! G0Q!
E2DD' -E' .! #-! Q#=#! 2H! 1G'! 503%'! 0 . .#1#2-!E' -1&'Q! 0- .! D0R2&! E&2JQ! N'&'! '0&D0&K' .! H2&! 503%'!
0 . .#1#2-!0- .! 503%'! EGO#-! . '5'32JD' -1)! , G'Q'! E&2JQ! #-E3% . '+! E0Q0050X! ?'0-Q! Q2F0! ?'0-Q! 0- .!
J#\$'2-!J'0Q)! I 22J'&0!#5'Q!G05'!'?' '-!03Q2!3#-K' .!12!E2DJ0-#Q!NG'&'!?'F!0\$&\$' \$01' .!503%'!J0 . . !
J&2.%E'!0&'!Q23 .!0!?'!11'&!J&#E'Q!1G0-!J&#E'Q!2HH'&' .!?'F!5' - .2&Q)!!

!

/ 21'N2&1GF! 21G'&! #-1'&5' -1#2-Q! %- . '&10K' -!#-! 1G'! Q'E12 -E3% . '! 1G'! B4 > I!]! , &0 . '! 8 '301' .!
"0E#3#1F! 6&2R'E!#-! T 20 , , !0#D' .!0!#DJ&25#-\$! 1G'! J&2 . %! 5#1F! 0- .! 7%03#1F! 2H! 2#3Q' ' . QX! 3#-K#-\$!
2#3Q' ' . Q!H0&D' &! \$&2% JQ! !2! J&2E' QQ2&QX! J&25# . #- \$! 1!0#-#- \$Q! 2 2Q! JG0&5' Q! G0- . 3#-\$! 0- . !Q! 0- . 0& . Q)!!
!

L:S! +-%2#\$/!E/*\$&-!1/2/(&37/'\$

0-19` ;bX! 1G'! \$25'&-D' -1X! 1G&2% \$G! T 20 , , ! . '5'32J' .! 0- .! 0 1' .! #DJ3' D' -10! #2-! 2H! 1G'! / 0! #2-03!
<=J2&1Q! B1&0! '\$F! @ / <B_! 12! ?' ! #DJ3' D' -1' . ! H2&! 0! J' . ! 2H! ' ! F' 0&Q)!! , G' ! 0#D! 2H! 1G'! / <B! N0Q! 12!
D0=#D#U' ! 1G'! . #&' E! E2-1&#?%1#2-! 2H! '=J2&1Q! 12! 'E2-2D#E - .! Q2E#03! . '5'32JD' -! 1! 1G&2% \$G! 1G'!
Jǵ' ! Q' E12&! #-! 0! D0-- '&! 1G0! #Q! ?030-E' . ! N#1G! 1G'! 'E2 D#E! ' DJ2N' &D' -! 2H! 1G'! ! &%&03! 0- . !
&%?0-! J22&X! QD033G23 . ' &! H0&D' &QX! F2% 1GQ! 0- . ! N2D' -)! . ! Q1&0! '\$F! J#U' . ! 1G&' ! ' =J2&1]
2&#'-1' . ! E3% Q1' &Q! H2&! J&2D2! #2-! 0- . ! 1G' Q' ! N' &' a!
!

%: ; %(!E//4! +-&46*\$0! f! E22K#-\$! 2#3X! Q20JQX! 3% ?&#E0-10 J0#-1QX! 50&-#QG' QX! D' 03Q! 0- . ! H32%&QX!
?#2]H% '3X! 0-#D03! H' ' .X! H' &1#3#U' &X! Q-0EKQ! 0- . ! E2- E1#2- '&F! . '' . ! H&2D! Q%-H32N' &X!
\$&2% - . -%1QX! Q2F0! 0- . ! E2! 112-)!

%%: E69#-! 5#' /! +-&46*\$0! f! Q%\$0&X! G#\$G! 503% ' ! ?&0- . ' % \$0&X! Q%\$0&! E2-H' E1#2- '&F! @Q%EG! OQ!
QF&% JQX! QN' ' ! 1QX! E0&0D' 3! ' ! E)_X! QN' ' 1' - ' &X! ' ! 1G0-23X! QJ# QX! E0- ' ! R%#E' X! H' &1#3#U' &X! 0-#D03! H' ' . X!
'3' E1&#E#1FX! E0&?2-! . #2=# . ' X! E2QD' 1#EQ!

%%: D# ' 6, #*\$6- /0! f! ?' 5' &0\$' QX! 0\$&2]J&2E' QQ#-\$! @# % . #- \$! . 0#&F! 0- . ! D0#U' X! NG' 0! X!
G2&1#E%31%&'! 0- . ! J%3Q' ! 503% ' ! 0 . . #1#2- _X! J30Q1#EQ! 0- . ! J0 0\$#-\$! 0- . ! 0QQ' D' ?3F)!
!

0DJ3' D' -10! #2-! 2H! 1G'! / <B! X! NG#EG! ' - . ' . ! #-! 9` ; e! G0Q! & 31' . ! #-! 0! &0J# . ! . '5'32JD' -! 2H! 1G'!
J#U' . ! Q' E12&QX! J0&1#E%30&3F! 2#3Q' ' . ! J&2 . %E! Q! E3% Q1' & NG#EG! G0Q! Q' ' -! D2&' ! E2DJ0-# ' QX!
E22J' &0! 1#5' Q! 0- . ! H0&D' &! \$&2% JQ! ' - \$0\$' ! #-! 503% ' ! 0 . . #1#2-! #5#1# ' Q! NG#EG! #-E3% . ' ! J&2E' QQ#-\$! 2H!
2#3Q' ' . Q! 0- . ! 2#3Q' ' . ! J&2 . %E! Q! 0- . ! ! q0 . 240 (&53 . 7694 cm! 55 (51] T JE22D) 0.2 (H51] T JE!) -79 . 8) 0 . 2 (. Q-0 . 2 (100

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%>"

6" #\$\$%&'(\$)3(*+, - '(\$)

!

B'E2-.0&F! '-&23D'-1! G0Q! Q1'0.#3F! #-E&'0Q' .! H&2D! b(cXb`(! #-! 9` ;(! 12! bedX:b*! #-! 9` ;eX!
&'J&'Q'-1#-\$! 0-! 05'&0\$'! \$&2N1G! &01'! 2H! 9)* i ! J'&! F'0&! , G#Q! #Q! 32N'&! 1G0-! 1G'! b)b i ! 05'&0\$'!
0--%03! \$&2N1G! &01'! #-! 1G'! -%D?'&! 2H! Q'E2-.0&F! QEG223Q! D'-1#2-' .! 0?25')! 431G2%\$G! '-&23D'-1!
G0Q!?' '-!&#Q#-\$! 1G#Q! D%EGX! #1! G0Q! D#QQ' .! 1G'!

"

&?"

V2N'5'&x!2H!J0&1#E%30&!E2-E'&-!#Q!1G'!1&0-Q#1#2-!&01'!2H!BJ'E#03! / ' ' .Q!Z'0&- '&Q)!01!#Q!1G'!T2<B,!
J23#EF!1G01! ;` ` i !2H! 6BZ I! J0QQ'&Q!?'!Q'3'E1' .!#-12!Q'E2- .0&F!QEG223Q)! ,G'!1&0-Q#1#2-!&01'!H2&!
B / <!Q1% . ' -1Q!G0Q!G#Q!2&#E033FX!0- .!E2-1#-%'Q!12!?'!H0&!32N'&!1G0-!1G0!2H!1G'!\$' - '&03!J2J%30!#2-)!
,G'!L' - . '&!60F!0- . '=!@L60_!0D2-\$!BJ'E#03! / ' ' .Q!Q1% . ' -1Q!N0Q!;) `d!#-!1G'!9` ;d]9` ;e!QEG223!
F'0&!!
!
8'E2DD' - .01#2-Q!

N2&Q'-'!!12!c*+;)!,G'!\$0J!#Q!N#.'-#-\$X!#-.#E01#-\$!0-!%&\$'-!E033!H2&! .2%?3'!QG#H1#-\$!2H!
E30QQ&22DQ!0-!E2-Q1&E!#2-!2H!-'N!Q'E2-.0&F!QEG223Q!0E&2QQ!IG'!E2%-1&F)!

!

L:A:@:S!e6#(%\$B!T73-&2/7/'\$0!

!

T2<B,!'DJG0Q#Q'Q!2-!#DJ&25#-\$!IG'!7%03#1F!2H!Q'E2-.0&F'!.%E01#2-X!0-!Q%EG!#1!G0Q!E2D'!%J!
N#1G!0!-%D?'&!2H!Q1&0!'\$#'Q!#-!#1Q! / 01#2-03!<.%E01#2-!623#EF)! ,G'!Q1&0!'\$#'Q!#-E3%.!'!7%#10?3'!
. 'J32FD' -!2H!7%03#H#'.!1'0EG'&QX!&'5#N!0-!#DJ3'D'-!01#2-!2H!0!&'3'50-!0-!&'QJ2-Q#5'
Q'E2-.0&F!E%&&#E%3D#J&25#Q#2-!2H!0JJ&2J'!#-E'-!#5'Q!12!&'10#-!1'0EG'&Q!#-!1G'!1'0EG#-\$!
J&2H'QQ#2-03!0-!'-G0-E#-\$!E2-1#-%2%Q!J&2H'QQ#2-03!. '5'32JD'-!1X!0D2-\$!21G'&Q)!

!

L:A:@:A!+63%(13/-7#/'\$5(#00-&&7!K#\$%&![+35K^!#4!+63%(!e6#(%,%/4!U/#*J/-!!!!

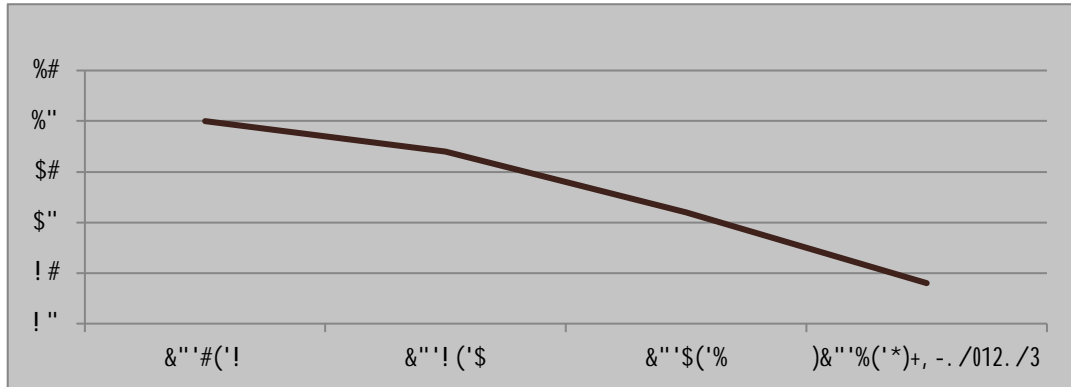
K#\$%&![+PUK^!

!

,G'!QEG223!F'0&Q!2H!9` ;dg;e!0-!9` ;eg;*!G05'!Q'-'!1N2!30&\$'!&2%-!Q!2H!&'E&%#1D'-!1Q!2H!-'N!
1'0EG'&Q)!*Xcb`!1'0EG'&Q!N'&'!&'E&%#1'.!#-!9` ;dg;e!0-!10-21G'&!eXccd!1'0EG'&Q!N'&'!&'E&%#1'.!#-!!
QEG223!F'0&9` ;eg;*)!0-!1G'!QEG223!F'0&9` ;dg;e!1G'&'!N'&'!0&2%-!d`X;`!7%03#H#'.!1'0EG'&Q!0-!!!
(*)!D#33#2-!3'0&-!&Q!#-!J%?3#E!J&#D0&F!QEG223QX!3'0.#-\$!12!0!-01#2-03!05'&0\$'!6%J#3!^%03#H#'.!!
, '0EG'&!801#2!@67, 8_!2H!d`+;)!!

"

)%96-!/L:IN!U-/'4!'!'"#\$%&'#(M2/-#9!/!+PUK!



E&6-*/N!D&8EUG!H?@I!

!

MH!E2%&Q'X!1G#Q!#DJ&'QQ#5'!. 'E3#-'!#-!-01#2-03!05'&0\$'Q!G#.'Q!1G'!.#QJ0#Q!#-!67,8! ?21G!
?'1N'-'!50%Q!QEG223Q!0-!!.#HH'&'!-!Q10-.0&.Q!N#1G#-!1G'!Q0D'!QEG223)!0-!1G'!QEG223!F'0&
9` ;dg;eX!9: i !2H!033!J%?3#E!J&#D0&F!QEG223Q!G0.!0!67,8!2H!ed+;!2&!G#\$G'&!0-!;!` i !2H!033!QEG223Q!
G0.!0!67,8!2H!;`d+;!2&!G#\$G'&!<=0E'&?01#-\$!1G'!%- '7%03! .#Q1&#?%1#2-!?'1N'-'!QEG223Q!Q!1G'!
%- '7%03! .#Q1&#?%1#2-!2H!1'0EG'&Q!?'1N'-'!Q10-.0&.Q!0!1G'!'=J'-Q'!2H!32N'&!Q10-.0&.QX!NG'&'!
67,8Q!2H1'-'!&0-\$'!0?25'!;`+;)!

!

0-10-!#.'03!Q#1%01#2-X!IG'!6JI8!#Q!Q%JJ2Q'.!12!?'!'7%03!12!1G'!J%J#3!7%03#H#'.!1'0EG'&!&01#2!67,8!
Q2!1G0!'0EG!7%03#H#'.!1'0EG'&!#Q!#-Q1&%E1#-\$!G#QgG'&!Q1%. '-1Q!#-!0!N'33]?%#3!X!7%03#1F!E30QQ&22D)!0-!
9` ;dg;e!IG'!6JI8!N0Q!0! ; ;c+;!0\$0#-Q!1!0!Q'E12&!10&\$'!2H!* (+;X!N'33!0?25'!10&\$'1)! ,G#Q!#Q! -2!
Q%&J&#Q#-\$!?'E0%Q'!1G'!E2-Q1&%E1#2-!2H!E30QQ&22DQ!#Q!'=J'-Q#5'!0- .!D0FX!#-!1G'!QG2&!1!%&-X!-2!1?'!
1G'!D2Q!E2Q!J'HH'E1#5'!D'0Q%&'!12!#DJ&25'!3'0&-#-\$!2%1E2D'Q)!

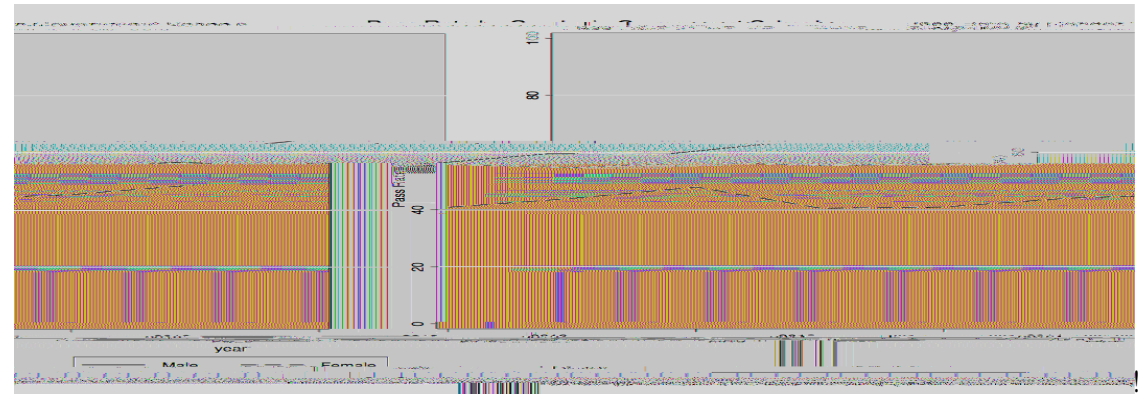
!
L:A:@!W!U/#*J/-0!X! e 6#(%,%/4!b /-060!Y' P6#(%,%/4!U/#*J/-0!

!
,G'!Q'E2-.0&F!Q%?JQ'E12&!#Q!Q32N3F!\$'11#-\$!&#.!2H!%-7%03#H#'.!1'0EG'&Q!#-!#1Q!QFQ1'D)!4EE2&.#-\$!12!
<T0BX!#-!9` ;e!0?2%1!cb i !2H!1G'!1'0EG'&Q!#-!J%?#E!Q'E2-.0&F!QEG223Q!G0.!#1G'&!0! .#J32D0!2&!
'\$&'!#-!'! .%E01#2-!2&!G0.!0!A-#5'&Q#1F! I '&1#H#E01'!2H!<.%E01#2-!#-!0. #1#2-!12!1G'&!.'\$&'X!
&'J&'Q'-1#-\$!0-!#DJ&25'D'-!1?F!*y9 i !H&2D!:d)b i !&'E2&' .!#-!9` ;d)!0-!\$&0-1J0#.'!QEG223Q!25'&!
ee i !2H!1G'!1'0EG'&Q!0&'!7%03#H#'.)!!

!
L:A:@!V!8=#7%'#\$%&'0!

!
,G'!T030N#!BEG223! I '&1#H#E01'!2H!<.%E01#2-!@TBI<_!'=0D#-01#2-!#Q!1G'!E%D#301#-\$!'='&E#Q'!2H!
;9!F'0&Q!2H!QEG223#-\$!#-!1G'!QEG223#-\$!QFQ1'D!@'#SG1!F'0&Q!0!J&#D0&F!3'5'3!0- .!H2%&!F'0&Q!0!
Q'E2-.0&F!3'5'3_)!W#1G!1G0!1#-!D#-.X!0!-01#2-!JN#.'!J0QQ!&01'!2H!:* i !#Q!-2!10!\$22.!#-.#E012&!2H!1G'!
7%03#1F!2H!3'0&-#-\$!#-!Q'E2-.0&F!QEG223!E30QQ&22DQ)! "#\$%&'!();`!?'32N!QG2NQ!1G'!J0QQ!&01'Q!2H!
?2F!0- .!\$#&3!3'0&-&Q!#-!L25'&-D'-!1!QEG223Q!N#1G!D03'Q!E2-1#-#-\$!12!2%1J0E'!1G'&!H'D03'
E2%-1'&J0&1QX!0- .!1G'!\$0J!QG2N#-\$!-2!'5#.'-E'!2H!E32Q#-\$)! "%&1G'&D2&'X"! "#\$%&'!();`!QG2NQ!1G'!
&'&'OK.2N-!2H!'=0D#-01#2-!J0QQ!&01'Q! ?&2K'-!2%1?F!J&2J&X!N#1G!L25'&-D'-!1!QEG223Q!
E2-1#-#-\$!12!?'!2%1D01EG'.!?'F!21G'&!J&25#.'&Q!#-!1G'!Q%?Q'E12&!

!
!
!
)%96-!/L:@!N!+#0!K#\$/0!FB!Q/'4/-!'!Q&2/-'7/'\$!E*J&&(0!



E&6-*/N!D&8EU!G!H?@V!

!
!

0HH2&.0?3'!0- .!G#\$G]7%03#1F!G'03!G!E0&'!), G&2%\$G!G'!VBB6!00X! T030N#!#Q!#DJ3'D' -1#-\$!J&2\$&0DQ!
!G0!0&'!10&\$'1#-\$!&' .%E!#2-!2H! V0Y!0- .! 40>B! J&'503' -E'!0- .! Q1%-1#-\$!0D2-\$!EG#3.&' -!2H! q:!
F'0&Q!), G'&'!0&'!03Q2!J&2\$&0DQ!1G0!0&'!J&2D2!#-\$!D0!'&-03!0- .!0.23'QE' -1Q[!&'J&2.%E!#5'!G'03!G!
0- .!E0DJ0#\$-Q!H2&!\$#&3Q!12!\$2!?0EK!12!QEG223!#H!1G'F! .&2JJ' .!2%! .% '!12!J&'\$-0-EF)!B2D'!2H!1G'
#-1'&5' -1#2-Q!NG#EG!L2 T!#Q!%Q#-\$!12!E%&?!1G'!5#E'Q!#-E3% .'+!

!

0-!0-!011'DJ!!12!&' .%E'! V0Y!0- .! 40>B! J&'503' -E'!0- .! -%D?'&!2H!

B1%-1#-\$!?'#-\$!0!-%1#2-03! .#Q2&. '&#-!EG#3.&' -X!L2T!0.2J1' .!0!D%31#]Q'E!2&!0JJ&20EG!12!&' .%E'!
#1)! T2V6X! T240W>X! 0- .! T2<B,! 0&'! N2&K#-\$! 12\$'1G'&! #-! 0! E22&.#-01' .! D0--'&! ?F!
#DJ3'D'-1#-\$! .#HH'&' -1!#-1'&5' -1#2-Q!1G0!0&'!0#D' .!0!J&25#.#-\$!0JJ&2J'!D'QQ0\$'Q!0#D' .!0!
EG0-\$#-\$!J'2J3'Q[!K-2N3' .'\$'X!011#1% . 'Q!0- .!J&0E1#E'Q)! ,G'Q'!D'QQ0\$'Q!0&'!0?2%1!&'E2DD' - . ' .!
EG#3.! H' ' .#-\$! J&0E1#E'Q! 0- .! Q0-#101#2-)! ,G&2%\$G! T240W>X! L2T! #Q! J&2D21#-\$! #-1'\$&01' .!
G2%Q'G23.!H0&D#-\$!#-!NG#EG!J'2J3'!0&'! '-E2%&0\$' .!12!G05'!0! ?0EKF0&.!\$0& . '-!N#1G! .#HH'&' -!
E&2JQ!#-!#1!0- .!H0&D!0-#D03Q)! ,G'!#mBT500267.000380Tm /]TJETQq0.24000.248.39Q--0.2(Q)-0q0.240!-69

F^ Q-#46#\$/!T'\$/-'0J%3!+-&9-#77/!

!

L2T!IG&2%\$G! T2ZB0!#Q!03Q2!#DJ3'D'-1#-\$!\$&0.%01'!#-1'&-QG#J!J&2\$&0DD'!%Q#-\$!#IQ!2N-!H%- .Q)!
4?2%1!bX` ``!#-1'&-Q!G05'!?'-'!&'J0.D#11' .!H2&!IG!'9` ;*g9`9`!H#QE03!F'0&!#-!50%Q! T > 4Q)!<=1&0!
F2%1G!N#33!?'!.'J32F' .!N#1G#-!1G'!H#&Q!7%0&1'&!2H!1G'!H#QE03!F'0&!0-!9` ;eg9` ;*X! (Xced!F2%1GQ!
N'&'!0110EG' .!12!50%Q! T > 4Q)! , G'!J&2\$&0DD'!#Q!D0#-3F!H2E%Q#-\$!2-!.'5'32J#-\$!#-1'&-Q[!QK#33Q!
&'7%#&' .!H2&!1G'!R2?!D0&K'1!#-! ?21G!1G'!J%?3#E!0- .!Jǵ'!Q'E12&Q!#-!2&.'&!12! ?&#.\$'!1G'!QK#33Q!
D#QD0!EG!J&2?3'D!?'!N'-'!1G'!#- .%Q1&F!@.'D0- .!Q#.'_!0- .!1&0#-#-\$!#-Q1#1#2-Q!

!

L:A:L! R#\$/-!E633(B!# '4!E#'\$#\$%&'

L:A:L:@!E#/,!R#\$/-!# '4!T73-&2/4!E#'\$#\$%&'!

C'32N!#Q!1G'!Q101#Q1#EQ!2H!050#30?#3#1F!2H!0EE'QQ!12!Q0H'!N01'&!0- .!#DJ&25' .!Q0-#101#2-!#-! T030N#!
Q#-E'!IG'!E2%-1&F!Q#\$-' .!H2&!0624!#-!9` ; ;)!
!

!

##) 8'G0?#3#101#-\$! 1G'!'=#Q1#-\$!N01'&! #-H&0Q1&%E1%&'!@#')! ?2&'G23'Q\! L&05#1F! "' .! BEG'D'Q!
'1E)_a!0- .!

###) !!!6&2D21'!&0#-!N01'&!G0&5'Q1#-\$)!

!

,2! '-G0-E'! Q%Q10#-0?#3#1F! 0- .! 'HH#E#'-EF! 2H! 1G'!'&'G0?#3#101' .! 0- .! -'N3F! E2-Q1&%E1' .! N01'&!
HOE#3#1#'Q!0- .!#DJ&25'!1G' #&!H%-E1#2-03#1F!&01'X!1G'!'D#-#Q1&F!G0Q!0.2J1' .!0!J0&1#E#J012&F!J30--#-\$\!
#DJ3'D'-101#2-!0- .!D2-#12&#-\$!2H!N01'&!Q%JJ3F!Q'&5#E'Q!0!1!32E03!3'5'3!1G&2%\$G!1G'!'H2&D01#2-!2H!
HOE#3#1F!D0-0\$'D'-!E2DD#11'Q!@#')!W01'&!AQ'&!4QQ2E#01#2-Q!0- .!W01'&!62#-!I2DD#11'Q_)!
,G'Q'!0&'!1&0#-' .!12!D0-0\$'!0- .!D0#-10#-!1G'!'HOE#3#1#'Q)! ,G'!'Q'E12&!G0Q!03Q2! #-Q1#1%1' .!
D'EG0-#QDQ!12!D2-#12&!0- .!&' .%E'!%-0EE2%-1' .!N01'&!@#')! / 2-]8'5'-%'!W01'&_!#-!033!1G'!'W01'&!
C20&.Q)!

!

W#1G!1G'!'5'&]\$\&2N#-\$!-01#2-03! . 'D0- .!2-!N01'&!&'Q2%&E'Q!0- .!E2-E'&-Q!2-!#1Q!050#30?#3#1F!0- .!
0EE'QQ#?#3#1F\!'?'11'&!D0-0\$'D'-!2H!1G'!'N01'&!&'Q2%&E'Q!12!'-Q%&'!1G01!#1!#Q!050#30?3'!0- .! .2'Q!
-2!1#D#1!Q2E#03!0- .!'E2-2D#E! . '5'32JD'-!E0--2!?'!25'&]'DJG0Q#U' .)! ,G'!'Q'E12&!G0Q!1G'&'H2&'!
'D?0&K' .!2-!1G'!'H2332N#-\$!Q1&01'\$#'Q!12!#DJ&25'!N01'&!&'Q2%&E'Q!050#30?#3#1F!0- .! 'HH#E#'-!
%1#3#U01#2-a!

!

L:A:L:H!' '#\$%' #'(!+&(!*B!5&' \$/=\$!!

!

,G'!Y#Q#2-!9`9`!N0Q!. '5'32J' .!#-!; **c!12!J&25#. '!0!32-\$]1' &D!J' &QJ' E1#5' !H2&!1G'!. '5'32JD' -! 2H! 1G'! N01' &! Q' E12&! , 2! 0EG# '5'! 1G'! Y#Q#2-! 9`9`X! L2T! G0Q! 25' &1#D'! . '5'32J' .! Q%EE'QQ#5'! D' .#%DJ1' &D!Q1&01' \$#'Q!1G01!#-E3% . '!1G'!E%&&' -! TL>B!000!@9` ;d!f!9`99_)!

!

0-! 3#- '! N#1G! 1G'! Y#Q#2-! 9`9`! 0- .! TL>B! 000X! 1G'! D0#-!

,G'!'?'-EGD0&K#-\$!H&0D'N2&K!#Q!0!1223!H2&!0QQ'QQ#-\$!J'&H2&D0-E'!2H!1G'!N01'&!?20&.Q)!,G'!Q'E12&!0\$&''.!2-!QJ'E#H#E!#-.#E012&Q!NG#EG!0&'!%Q'.!12!?'-EGD0&K!1G'!?20&.Q!N#1G!1G'!?'Q!J'&H2&D'&!\$'11#-\$!0!&'N0&.!NG#3'!N2&Q!J'&H2&D'&Q!?'#-\$!'!-E2%&0\$'.!12!.2!?'11'&!2&!#-.''.!?'#-\$!N0&-'.)!<=0DJ3'Q!2H!Q%EG!#-.#E012&Q!0&'a!3'5'3Q!2H!-2-]&'5'-%'!N01'&X!W01'&!7%03!1FX!Q'&5#E'!E25'&0\$'!0-!.!J&2.%E1#2-!\$&2N1GX!H#-0-E#03!Q%Q!0#-0?#3!1F!'!1E)!0-!12!03!1G'&'!0&'!9(!D0#-!#-.#E012&Q)!

!

L:A:S!Q/'4/-!8P6#(%\$B!#'4!873&C/-7/'\$!&!,R&7/'!

!

,G'!L25'&-D'-!E2-1#-%'Q!12!Q1'!12N0&.!0E1%03#U#-\$!#1Q!E2DD#1D'-!Q!2-!L'-.'&!<7%03#1F!0-!.!W2D'-!<DJ2N'&D'-!1)!M5'&!1G'!J0Q!H2%&!F'0&QX!1G'!D0#-!H2E%Q!G0Q!?''-!1G'!E&'01#2-!2H!0!E2-.%E#5'!3'\$03!0-!.!J23#EF!H&0D'N2&K!H2&!\$'-.'&!7%03#1F)!"%&1G'&X!L25'&-D'-!G0Q!?''-!D0#-Q1&'0D#-\$!\$'-.'&!#-!1G'!-01#2-03!. '5'32JD'-!J&2E'QQ!?F!?%#3.#-\$!E0J0E#1F!2H!T>4Q)!0-!9`e!L25'&-D'-!J32F'.!;9!L'-.'&!0-!.!>'5'32JD'-!2HH#E'&Q!12!>#Q1&#E!I2%-E#3Q!NG2!0&'!K'F!#-\$!\$'-.'&!D0#-Q1&'0D#-\$!0!>#Q1&#E!0-!.!I2DD%-#1F!Z'5'3)!0-!1G'!Q0D'!F'0&X!L25'&-D'-!1!

Q05#-\$Q!\$&2%JQ!0&'!2J'&01#2-03!?'-'H#1#-\$!():!D#33#2-!#-.#5#.%03Q!0-.!25'&!TK!:!#33#2-!@AB>!d!
D#33#2-!#Q!#-!E#&E%301#2-)! ,G#Q!N#33!\$2!0!32-\$!N0F!#-!' -Q%&#-\$!IG0!N2D' -!0- .!\$#&3Q!0&'!
'E2-2D#E033F!'D0-E#J01' .)!
!

!

L:A:A!E&*%#(!+-\$&/*\$%&'!

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B2E#03!6&2! 'E1#2-!#-! T 030N#!#Q!\$%# . ' !?F!IG'! / 01#2-03!B2E#03!B%JJ2&!623#EF!@ / BB6_!NG#EG!#Q!#-!
1%&-!2J'&01#2-03#U' .!IG&2%\$G!IG'! T 030N#! / 01#2-03! B2E#03! B%JJ2&! 6&2\$&0DD'!00!@T / BB6!00_)!
T / BB6!00!0HH#&DQ!\$25'&-D' -!Q!E2DD#ID' -!1!2! . '3#5'&!Q2E#03!Q%JJ2&!?F!J&25#.#-\$!#-E2D'!0- .!
E2-Q%DJ1#2-! Q%JJ2&! 12! 1G'! J22&! 0- .! H22! .! #-Q'E%&'X! ?F! J&21'E1#-\$! 1G'! 5%3- '&0?3'! 0\$0#-Q!
3#5'3#G22 .!&#KQX! ?F! . '5'32J#-\$!0!Q2E#03! J&21'E1#2-!QFQ1'D!IG0!#Q!0?3'!12!&'QJ2- .!12!QG2EKQ!#-!
E2-R%-E1#2-!N#1G!IG'!G%D0-#10�-!Q'E12&!0- .! ?F! '-G0-E#-\$!IG'!Q2E#03!Q101%Q!0- .!&#\$G1Q!2H! 1G'!
D0&\$#-03#U' .)!01Q!25'&033!2'R'E1#5'!#Q!12!&' .%E'!%31&0!@' =1&'D' _!J25'&1F!0Q!N'33!0Q!1G'!'E2-2D#E!
0- .!Q2E#03!5%3- '&0?3#1F!2H!J22&!0- .!D0&\$#-03#U' .!\$&2%JQ!
!

!

,G&'!E2&'!J#330&Q!G05'!?'-'!# . '-1#H#'.!%- . '&!G'!T / BB6!00!12!0EG#'5'!IG'!Q1&0! '\$#E!2?R'E1#5'Q!2H!
1G'! / BB6!0- .! '0EG! J#330&!G0Q!0!Q1&0! '\$#E!2?R'E1#5'!IG0!0 . .&'QQ'Q!0!QJ'E#H#E! -' .!2H!J22&!0- .!
5%3- '&0?3'!#- .#5#.%03Q!0- .!G2%Q'G23.Q)! ,G'!IG&'!E2&'!J#330&Q!0&' +!
!

!

%:! 5&'0673\$%&'! E633&-\$! +%(#-N! Q&2/-'7/'\$! 3-&2%4/0! *&'0673\$%&'! 0633&-\$! 12! '-0?3'!
G2%Q'G23.Q!12!D'!'1!IG'&#!?0Q#E!-' .QX!#-E3#.#-\$!H2&!H22.!Q'E%FX!QG'31'&X!' .%E01#2-!0- .!G'03!G!#-!
2& . '&!12!J&25# . '0!D#-#D%D!2H!J&21'E1#2-!12!QG#'3 .!G2%Q'G23.Q!H&2D!IG'!D2Q1!#DD' .#01'!H2&D!2H!
'Jǵ#2-)! ,G'!B2E#03! I0QG! ,&0-QH'&!6&2\$&0DD'!@BI , 6_X!J%?3#E!N2&KQ!J&2\$&0DD'Q!@6W6Q_!
0- .!1G'!-01#2-03!BEG223! T'03Q!6&2\$&0DD'!@BT6_!J&25#.'Q! .#&'E1!E2-Q%DJ1#2-!Q%JJ2&!0- .!0&'!
1G'&'H2&'! 1G'! H2E%Q! 2H! 1G#Q! J#330&! 0-! 9` ; *X! \$25'&-D' -!#-E&'0Q' .! 1G'! BI , 6! E25'&0\$'! H&2D!
!

,G'! L25'&-D' -! G0Q! &'5#N' .! 1G'! <-5#&2-D' -! T0-0\$'D' -! @?21G! IG'D#E03Q! 0- .! ,2=#E!
B%?Q10-E'Q!OQ!N'33!OQ!W0Q1'! T0-0\$'D' -!0- .!B0-#101#2-! 8'\$%301#2-Q!2H!9>`e!12!' -Q%&'!1G0!
- 'N!QE#'-1#H#E!#-H2&D01#2-!1G0!G0Q!'D'&\$' .!Q#-E'!9>`e!#Q!#-E2&J2&01' .!#-12!1G'!'&'\$%301#2-Q!H2&!
1G'!'HH'E1#5'!J&21'E1#2-!2H!1G'!' -5#&2-D' -!0- .!1G%D0-!G'031G)!
!

,G'! L25'&-D' -! G0Q!03Q2! . '5'32J' .!0- .!J#&-1' .!0! / 01#2-03!W0Q1'! T0-0\$'D' -!B1&01'\$F!H2&!
9`;*j9`9bX!NG#EG!Q'1Q!2%1!1G'!J#Q!12!?'!J%&Q%' .!12!D#-#D#Q'!1G'!' .!1&#D' -103!#DJ0E1!2-!
G%D0-!G'031G!0- .!1G'!' -5#&2-D' -!0Q02E#01' .!N#1G!N0Q1'!0- .!12!#DJ&25'!1G'!'D0-0\$'D' -!2H!
N0Q1'!'#-!1G'!'E2%-1&F!10K#-\$!#-12!E2-Q# . '&01#2-!1G'!'B>L!4\$' - .0!9`b`)! ,G'!Q1&01'\$F!J&25# . 'Q!
#-H2&D01#2-!2-!1G'!'&'\$%3012&F!0- .!#-Q1#1#2-03!#-H&0Q1&%E1%&'X!Q101%Q!2H!N0Q1'!'D0-0\$'D' -!#-!
T030N#X!0- .!#H#&' -!1!FJ'Q!2H!N0Q1'Q!0Q!N'33!OQ!1223Q!12!' -0?3'!&'\$%3012&F!?2 .#QX!\$' - '&012&Q!2H!
G0U0& .2%Q!N0Q1'X!#-E3% .#-\$!1G'!'J%?3#EX!0- .!&'EFE3'&Q!0- .!2J'&012&Q!2H!H0E#3#1#Q!12!' -0?3'!1G'D!12!
D#-#D#Q'X!&'EFE3'X!1&'01!0- .!#QJ2Q'!2H!N0Q1'!'#-!0-!' -5#&2-D' -1033F!Q2%- .!D0-- '&!H2&!1G'!
Q%Q10#-0?3'! . '5'32JD' -!2H!T030N#)!!
!

,G'! L25'&-D' -! N#1G! H#-0-E#03! 0Q0#Q10-E'! H&2D! L32?03! <-5#&2-D' -! "0E#3#1F! @L<"_! 0- .!
1'EG-#E03!0Q0#Q10-E'!H&2D!1G'!'A-#1' .! / 01#2-Q!<-5#&2-D' -!6&2\$&0DD'!@A / <6_!&'5#N' .!0- .!
%J .01' .! 1G'!'9>` :! / 01#2-03! 0DJ3'D' -101#2-! 630-! @ / 06_! H2&! 1G'!' B12EKG23D! I2-5' -1#2-! 2-!
6'&Q#Q1' -! M&\$0-#E! 6233%10-1Q!@6M6Q!_#-! T030N#! 10K#-\$!#-12!E2-Q# . '&01#2-!1G'!' - 'N!EG'D#E03Q!
0 . . ' .!12!1G'!'B12EKG23D! I2-5' -1#2-!2-!6M6Q)! ,G'!'&'5#Q' .! / 06!J&25# . 'Q!#-H2&D01#2-!2-!6M6Q!
D0-0\$'D' -!#-! T030N#! Q#-E'!1G'!'9>` :! / 06! N0Q! . '5'32J' .)! 01! G0Q! H2E%Q' .! 2-! K'F! 0&'0Q!
#-E3% .#-\$a!1G'!'3'\$%Q301#5'!0- .!#-Q1#1#2-03!H&0D'N2&KQX!E0J0E#1F!?'%#3 .#-\$X!#-H2&D01#2-!'=EG0-\$'X!
J%?3#E!0N0&' - 'QQ!0- .!&'Q'0&EG!0- .! . '5'32JD' -!1)! ,G'!'J .01' .! / 06!03Q2! J&25# . 'Q!1G'!'E%&&' -!
Q101%Q!2H! D0-0\$'D' -!2H! QJ'E#H#E! 6M6Q!#-E3% .#-\$! J'Q1#E# . 'Q! OQ! N'33! OQ! J&25# .#-\$! ?OQ'3#- '
#-H2&D01#2-!H2&!1G'!' - 'N!EG'D#E03Q!0 . . ' .!12!0-- '='Q!4X!C!0- .! I!2H!1G'!'B12EKG23D! I2-5' -1#2-)!
,G'!' / 06!J&25# . 'Q!\$%# .0-E'!2-!1G'!'#DJ3'D' -101#2-!D'0Q%&'Q!1G0!T030N#!QG2%3 .!10K'!#-!2& . '&!12!
'HH'E1#5'3F!D0-0\$'!6M6Q!H2&!1G'!'J&21'E1#2-!2H!G%D0-!G'031G!0- .!1G'!' -5#&2-D' -!#-!0EE2& .0-E'
N#1G!1G'!'B>LQ)!
!

0-! ' -Q%&#-\$! 1G'!'Q0H'!'%Q'! 0- .! G0- .3#-\$! 2H! #2-#Q#-\$! &0 .#01#2-! Q2%&E'Q! #-! 1G'!' E2%-1&FX! 1G'!
L25'&-D' -! . '5'32J' .! 412D#E! <- '&\$F! @?21G! BOH'! 0- .! B'E%&'! ,&0-QJ2&1! 2H! 80 .#20E1#5'!
T01'�G3-1575800- G' .#(%)0 .2(G3-!)T jE T Qq0 .G32H! BG1jE T Qq2400400 .! 3 32-! 8' -157580G .7694!-190(E)'0

TEG#-R#a! 1G'! T030N#! >'H'-E!' "2&E'! 8'H'&&03! V2QJ#103! #-! Z#32-\$N'a! 1G'! 6G0&D0E'%1#E03!
T0-%HOE1%&&#-\$!630-1!#-!Z#32-\$N'a!0- .!1G'!I 60! ,#D?'&!6&2E'QQ#-\$!"0E12&F!#-!TU#D?0)!!

!

"%&1G'&D2&'X!1G'!L25'&-D'-!E2-1#-%' .!D2-#12&#-\$!1G'!#DJ3'D'-101#2-!2H!. '5'32JD'-!J&2R'E1Q!
12! '-Q%&'! E2DJ3#0-E'! N#1G! <-5#&2-D'-1! 0- .! /01%&03! 8'U2%&E'! ! T0-0\$'D'-1! [</ 8 T_!
3'\$#Q301#2-Q)!0-!1G#Q!&'\$0&.X! ;d!J21'-1#033F!J233%1' .!Q#1'Q!N'&'!#-QJ'E1' .!0- .!?'Q1' '-5#&2-D'-103!
J&0E1#E'Q!N'&'!J&2D21' .)! ,G'!Q#1'Q!0- .!HOE#3#1# 'Q!#-QJ'E1' .!#-E3% .'+! T2%-! T '&%! I22K#-\$!M#3!

G05'!'?'-'-!.!'!.!@*!#-!h2D?0!0-!c!#-!/KG0!0!C0F_X!J&2D2!'.!3#5'Q12EK!J&2.%E1#2-!@\$20IQX!
J#\$\$'&F!0-!J2%31&F_X!0-!HOE#3#10!'.!?'K'J#-\$!H2&!G2-'F!J&2.%E1#2-!H2&!G2%Q'G23.!#-E2D'!#-!
2&.'&!12!&'%E'!IG'&!5%3-'&0?#3#1F!12!0.5'&Q'!#DJ0E1Q!2H!E3#D0!'!EG0-\$')

!

"%&1G'&D2&'X!1G'!L25'&-D'-!1G&2%\$G!1G'!I3#D0!'!6&22H#-\$!Z2E03!>'5'32JD'-!L0#-Q!6&2R'E!
G0Q!#DJ3'D'-1'!.!0!-%D?'&!2H!J&2\$&0DD'Q!#-!%&?0-!0-!&%&03!0&'0Q!2H!T0EG#-\$0!0-!T0-\$2EG#!
>#Q1&#E1Q! / 2!0?3'!0EG#5'D'-!Q!#-!1G'!J&2R'E!0&'0Q!#-E3%.'+!1G'!&'G0?#3#10!#2-!2H!0QQ0!TJ2-.0!
Q230&J2N'&'!&#&\$0!#2-!QEG'D'!@:G0!#-!,)4!TJ2-.0!T0-\$2EG#!0-!E2-Q1&%E1#2-!2H!1N2!
D'-.#%D!&#&\$0!#2-!QEG'D'Q!@c`G0!0! / 0D2Q#X!,4!T32D?0!0-!A32-\$N'X!,4! / F0D?#!#-!
T0EG#-\$0a!1G'!. '5'32JD'-!2H!0!E3#D0!'JQD0&!H#QG#-\$!G0-.?22Ka!1G'!E2-Q1&%E1#2-!2H!0!E3#D0!'J
J&22H'!.!D%31#J%&J2Q'!.0D!#-!B10D?%3#5#330\$'X!,4!TJ2-.0!#-!T0-\$2EG#!.#Q1&#E1!12!Q%JJ3F!N0!'&
H2&!&#&\$0!#2-!H0&D#-\$X!H#QG!H0&D#-\$!0-!.!2D'Q1#E!J%&J2Q'Qa!1G'!J&2D2!#2-!2H!'?'K'J#-\$!0-!.
D%QG&22D!J&2.%E1#2-!#-!,4!T32D?0X! / F0D?#!0-!IG#KN'2!#-!T0EG#-\$0!.#Q1&#E1X!NG#EG!G0Q!
&'Q%31'!.!#-!#-E&'0Q'!.!#-E2D'!#-!E2DD%#-!#Q!#-!1G'!J&2R'E!0&'0!@0?2%1!TK;bX` ``X` ``!2H!#-E2D'!
G0Q!?'-'-!&'03#Q'!.!%-.!&!1G#Q!J&2\$&0DD'_a!1G'!&'G0?#3#10!#2-!2H!0!;9KD!&20.!0!,4!IG#KN'N2!#-!
T0EG#-\$0!>#Q1&#E1!12!#DJ&25'!0EE'QQ!12!1G'!0&'0a!0-!E2-Q1&%E1#2-!2H!Z#K2-. '12#3!&'H#-#-\$!HOE12&FX!
0!0QQ0!TJ2-.0X!,4!TJ2-.0!#-!T0-\$2EG#)!

!

,G'!L25'&-D'-!X!#-!0EE2&.0-E'!N#1G!1G'!&'7%#&'D'-!Q!2H!1G'!T2-1&'03!6&212E23!2-!1G'!J&2!E1#2-!
2H!1G'!2U2-'!30F'&X!E2-1#-%'Q!12!#DJ3'D'-!0E1#5#1#Q!2-!1G'!JG0Q'J2%1!2H!MU2-'!>'J3!1#-\$!
B%?Q10-E'Q!@M>B_!#-!1G'!E2%-1&F)!4!D0R2&!Q2%&E'!2H!M>B!#-!T030N#!#Q!H&2D!1G'!&'H&#&\$'&0!#2-!
0-!0#&JE2-.#1#2-#-\$!Q'E12&!B2!H0&X!D2&'!1G0-!(^!J'E'-!2H!GF.&2EG32&2H3%2&2E0&?2-Q!@VI"IQ!
G05'!'?'-'-!JG0Q'J2%1!#-!1G'!E2%-1&F!0-!VI"IQ!N#33!?'!E2DJ3'1'3F!JG0Q'.!2%1!?'F!9`b`!0Q!J'&!
1G'!T2-1&'03!6&212E23!QEG'.%3')!,G#Q!&'%E1#2-!#-!E2-Q%DJ1#2-!2H!VI"IQ!#Q!011&#?%1'!.!12!1G'!
Q1&2-\$!'-H2&E'D'-!2H!M>B!&'%\$30!#2-QX!'-G0-E'!.0N0&'-'QQ!2-!2U2-'!#QQ%'Q!0-!!'-G0-E'!.
E0J0E#1F!2H!K'F!Q10K'G23.'&Q!#-5235'!.!#-!1G'!M>B!JG0Q'J2%1!0E1#5#1#Q!0-!0-!HH2&!12!D'!'!1G'!
JG0Q'J2%1!10&\$'1Q!%-. '&!1G'!T2-1&'03!6&212E23!1G'!L25'&-D'-!G0Q!1&0#-'.!b9`!&'H&#&\$'&0!#2-!
1'EG-#E#0-Q!2-!\$22.!&'H&#&\$'&0!#2-!J&0E1#E'Qa!1&0#-'.!9c`!E%Q12DQ!2HH#E'&Q!2-!E2-1&23!0-!.
D2-#12&#-\$!#DJ2&1Q!2H!M>B0-!E2-1#-%'!.!D2-#12&#-\$!E2DJ3#0-E'!12!&'%\$30!#2-Q!2-!1G'!
D0-0\$'D'-!2H!M>B!#-!1G'!E2%-1&F)!B#-E'!1G'!M>B!JG0Q'J2%1!J&2R'E!#DJ3'D'-!10!#2-!Q10&1'.X!
1G'!E2%-1&F!G0Q!D0-0\$'!.!12!E2DJ3'1'3F!JG0Q'!2%1!1G'!%Q'!2H!EG32&2H3%2&2E0&?2-Q!0-!D'1GF3!
&2D#.'!#-!1G'!&'H&#&\$'&0!#2-!0-!.!0\$&#E%31%&'!Q'E12&QX!&'QJ'E1#5'3F)!

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L:W:L!<%&4!2/-0%B!5&'0/-2#%&'!#4!+-&\$/*%&'!

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8'E2\$-#Q#-\$!1G'!E#E03!&23'!2H!#2.#5'&Q#1F!0-!'E2QFQ1'DQ!#-!J25'&1F!&'%E1#2-X!1G'!
L25'&-D'-!E2-1#-%'!.!#DJ3'D'-!1#-\$!J&2\$&0DD'Q!0#D'!.!0!J&2D2!#-\$!E2-Q'&50!#2-!0-!.
Q%Q10#-0?3'!%Q'!2H!#2.#5'&Q#1F!#-!1G'!E2%-1&F)!,G'!L25'&-D'-!.'5'32J'!.!0-!#DJ3'D'-!1'!.0!
J&2R'E!12-!'-G0-E#-\$!Q%Q10#-0?#3#1F!2H!6&21'E1'!.!4&'0Q!#-!T030N#X!0-!.!Q10?#3#Q#-\$!0\$&2J&2.%E1#2-!
#-!0.R2#-#-\$!0&'0Q!1G&2%\$G!#DJ&25'!.!0-50Q#5'!43#-!BJ'E#Q!D0-0\$'D'-!1!@04B_)!,G'!J&2R'E!1#Q!

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#DJ3'D'-1' .!#-! T%30-R'! T2%-10#-!"2&'Q! 8'Q'&5'!0- .! /F#K0! /01#2-03! 60&K)!01! N#33! 0QQ#Q! 1G'!
E2%-1&F!#-!D0-0\$#-\$!0-50Q#5'!43#'-!BJ'E#Q!#-!1G'!1N2!Q#1'Q!0- .!Q%&&2%- .#-\$!0&'0Q)!
,G'!L25'&-D'-!H%&1G'&!J&'J0&' .!1G'!B#=1G' /01#2-03!&'J2&1!12!1G'! I2-5'-1#2-!2-!C#232\$#E03!
>#5'&Q#1F!H2&!T030N#!#-!0EE2&.0-E'!N#1G!4&1#E3'!9c!2H!1G'! I2-5'-1#2-!0- .! . 'E#Q#2-!sg;`!2H!1G'!
I2-H'&' -E'! 2H! 1G'! 60&1#Q)! ,G'! &'J2&1! #Q! 0! K'F! Q2%&E'! 2H! #-H2&D01#2-! H2&! #DJ3'D'-1#-\$!
?#2 .#5'&Q#1F! J&2\$&0DD'Q!#-!1G'!E2%-1&F)!01!#Q!03Q2!0-!#DJ2&10-!1! J30--#-\$!1223!H2&! ?#2 .#5'&Q#1F!
D0-0\$'D'-!01!1G'!-01#2-03!0- .!32E03!3'5'3)!
!

L:W:S! D#'#9/7/'\$&,'!6*(/#-!K#4%#\$&'!E&6-*/0!

!

,2!#DJ&25'!1G'!D0-0\$'D'-!2H!-%E3'0&!&0.#01#2-!Q2%&E'Q!#-!T030N#X!1G'!L25'&-D'-!2HH#E#033F!
30%-EG' .!4!2D#E!<- '\$&F!8'\$%3012&F!4%1G2F!@4<84_!2-!c\$%!T0&EGX!9`;*),G'!4%1G2F!#Q!
D0-.01' .!12!E22&.#-01'!0- .!J&2D21'!1G'!#DJ3'D'-101#2-!2H!0E1#5#1#Q!0#D' .!01!J&21'E1#-\$!G%D0-!
0- .!1G'! '-5#&2-D'-!1! H&2D! 1G'! G0&DH%3! 'HH'E1Q! 2H! #2-#Q#-\$! &0.#01#2-)! 4D2-\$! 2!G'&QX! 1G'!
L25'&-D'-!1! G0-0.2(D)2&! !! I2-5'0'!2(')(2(-\$!)-375.8(&0)0.2(G')0.2(!)]TJETQq0.24000.248.3906593.7

#) +-&46*\$%2/! E/*\$&-N! 4\$&#E%31%&'! @#-E3% . ' ! E&2JQX! #&&#\$01#2-! 0- .! H#QG'&#'Q_! 0- .!
0- .%Q1&F!O- .!, &O. 'a!!

##) E&*%#(!E/*\$&-N!

E2-1&23!D'0Q%&'Q!#-!1G'!H322.!J&2-'!0&'0Q)! "322.]H2&'E0Q1#-\$!0- .!E2DD%-#1F! ?0Q' .!H322.! '0&3F!
N0&-#-\$!QFQ1'DQ!N#33!?'!Q1&' -\$!G' -' .!#-!033!H322.!J&2-'!0&'0Q)!

!L:W:V! 1/F\$!# '4!1/F\$!D#'#9/7/'\$!

!

L25'&-D'-!.. '5'32J' .!0!D' .#%D]1'&D!Q1&01'\$F!2-!J%?3#E!.. '?!D0-0\$'D'-!NG#EG!#Q!'=J'E1' .!12!
&' .%E' !&#QKQ!12!1G'!'E2-2DF!?'&2%\$G1!#-!30&\$'3F! .%!'!2!0!30EK!2H!0!E2G'&' -!.. #&'E1#2-!2-!.. '?1)! ,G#Q!
#Q! .%!'!12!1G'!'&'0Q2-!1G0!0.. &'QQ#-\$!0!&#Q#-\$!J%?3#E!.. '?IX!NG#EG!#

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'&"

L:W:I! D&F%(0%'9!,%'#'*%#(!-/0&6-*/0!,&-!4/2/(&37/'\$!#'4!*#3#*%\$B!F6%(4%'9!

L:W:I:@!! 1 & 7 /0\$!*!K/0&6-*/!D&F%(0#%\$&'!

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04 K/2/'6!/+&(%*/0!# '4!\$#=#!#47%'%0\$-#%\$&'*

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,G'!L2T!G0Q!#DJ3'D'-1'!.!0!-%D?'&!2H!10=!&'H2&DQ!Q#-E!'9` ;;!12!'-G0-E'!.2D'Q1#E!&'Q2%&E'!
D2?#3#U01#2-)! ,G'!&'H2&DQ!12%EG'!.!2-! ?21G!J23#E# 'Q!0-!.!10=!0.D#-#Q1&01#2-)!M-!1G'!J23#EF!H&2-1X!
1G'!L25'&-D'-!G0Q!'-'.'052&'!.!12!J&2D21'!'?&20.!'?0Q'!.!10=!J23#EF!&'H2&DQ!2-! ?21G!#-E2D'!
10='QX!503%'!0..!.!10='Q!0-!.!21G'&110='Q!2-!\$22.Q!0-!.!Q'&5#E'Q)!B2D'!2H!1G'!&'H2&DQ!#-E3%. 'a!
D#-#D#U#-\$!1G'!3#Q!2H!'='DJ1#2-Q!0-!.!U'&2!&01'!.!J&2.%E1Q!H2&!Y03%'!4..!.!,0=@Y4 ,_X!
D#-#D#U#-\$!12!1G'!'='1'-!J2QQ#?3'!\$&0-1#-\$!2H!10=#-E'-1#5'Q!'=E'J!H2&!JF!Q'E12&Q!-0D'3F!
0\$&2]J&2E'QQ#-\$!0-!.!'&\$F!\$'- '&01#2-!0-!.!1&0-QD#QQ#2-)!!

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,G'!10=!0.D#-#Q1&01#2-!&'H2&DQ!#DJ3'D'-1'!.!25'&!1G'!F'0&Q!G05'!H2E%Q'!.!2-!Q1&'-\$!1G'-'-\$!1G'!
QFQ!DQ!2H!&'5'-%'!E233'E1#2-!0Q!N'33!0Q!Q1&'-\$!1G'-'!0%.#1!H%-E1#2-Q!2H!1G'!T030N#!8'5'-%'!
4%1G2F!@T84_)!0-!9` ;bX!1G'!L25'&-D'-!1#-1&2.%E'!.!<3'E1&2-#E!"#QE03!>'5#E'Q!@<">Q!H2&!
Y4 ,!0.D#-#Q1&01#2-!N#1G!0!5#'N!12!#-E&'0Q'!&'5'-%'!E233'E1#2-X!'-Q%&'!10=!E2DJ3#0-E'!0-!.!
&'%.%E'!1G'!E2Q!12H!E233'E1#2-)!"%&1G'&X!1G'!L25'&-D'-!1#-1&2.%E'!.!<J0FD'-1Q!12!D0K'!#!'0QF!H2&!
10=J0F'&Q!12!D''!1G'&!10=!2?3#\$01#2-Q)!4..#1#2-033FX!#-!2&.'&!12!J&2D21'!3'\$#1#D0!'!1&0.'!0E&2QQ!
1G'!?'2&.'&Q!0-!.!D#-#D#U'!. '30FQ!#-!E3'0&0-E'!2H!#DJ2&1'!.!\$22.QX!1G'!L25'&-D'-!1G0Q!#-1&2.%E'!.!
I0&\$2!BE0-- '&Q!0E&2QQ!1G'!E2

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'@'

? U#=#! ./9%0(#\$&'!K/2%/C!

!

B#-E'! 9` ;dX! 1G'! L25'&-D'-! G0Q! .'5'32J' .! 1N2! J#'E'Q! 2H! 10=! 3'\$#Q301#2-! -0D'3F! U#=#!

M47%'%0\$-#\$%&'! <%((! [UM<^! 0- .!

WG#3'! -2! .#QE&#D#-012&F! 12!H2&'#\$-!#-5'Q12&QX!#-5'Q1D' -1Q!#-! T 030N#!&'7%#&'!Q2D'!J&2E'QQ'QX!
NG#EG!D0F!#-E3% . '!2?10#-#-\$!0!?!%Q#- 'QQ!3#E' -Q'X!0!10=!&'\$#Q1&01#2-!-%D?'&X!0- .!0!30- .!%Q'!J'&D#1)!
,G'!0\$&#E%31%&03!Q'E12&!011&0E1Q!1G'!D2Q1! ">0X!J&#D0F!H&2D!B2%1G!4H&#EOX!L'&D0-F!0- .!1G'!
A-#1' .!B101'Q!2H!4D'&#E0!@AB4_)! ,G'!'=J32&01#2-!2H!&0&'!'0&1G!'3'D' -1Q!- '0&!Z0K'!T 030N#!E2%3.!
011&0E1! -'N!#-5'Q1D' -1Q!#-!1G'!D#-#-\$!Q'E12&! ,G'&'!#Q!03Q2!G2J'!1G0!0-!2#3!H#'3. !N2%3.!?!
. #QE25 '&' .!#-!1G'!&'\$#2-)! T 030N#!&0-K' .

L25' &-0-E'!B'E12&!B1&01'\$F!12!J&25#. '!J23#EF!.#&'E1#2-!2-!\$25' &-0-E'!#QQ%'Q)!, G'!L25' &-D' -! 03Q2!&'5#'N'!.!30NQ!0-!.!.&0H1'!.! ?#33Q!0#D'!.!0!J&2D21#-\$!\$22.!. \$25' &-0-E'!Q%EG!0Q!IG'+!Z2E03! L25' &-D' -!@4D'-.D'-!_!4E1a!T#-'Q!0-!.!T#-'&03Q!@4D'-.D'-!_!4E1a!623#1#E03!60&1#Q!4E1a! 6%?3#E!6&2E%&'D' -!0-!.!>#QJ2Q03!2H!4QQ'1Q!4E1a!0-!.!Z0?2&!8'301#2-Q!@4D'-.D'-!_!4E1a!4-! 4QQ'!'2&H'#1%&'!A-#!N0Q!03Q2!. '5'32J'!.!N#1G#-!1G'!>#&'E12&01'!2H!6%?3#E!6&2Q'E%1#2-!NG2Q'! D0-.01'!#Q!12!Q'#U'!033!#33]S211'-'!00Q'1Q!0-!.!0-F!J&2E'.'.Q!H&2D!IG'D)!

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F: M/00!\$&!`60\$%*/!**

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,2!J&2D21'!0EE'QQ!12!R%Q1#E'X!1G'!H2332N#-\$!N0Q!0EG#5'.'.+!<-0E1D' -!2H!1G'!'>'E'0Q'!.!<Q101'Q! @W#33QX!0-G'
-E'!0-!.!6&21'E1#2-!_!C#33X!9` ; ;a!<Q10?3#QGD' -!2H!1G'!'Z'\$03!4#.!C%&'0%!12!J&25#. '! 3'\$03!0#.!Q'&5#E'Q!12!1G'!5%3-'&0?3'!\$&2%JQ!2H!J'2J3'a!I2DD' -E'!.!1G'!'J&2E'QQ!2H!2J'&01#2-03U#-\$! 1G'!'Z2E03! I2%&1Q!4E1!1G&2%\$G!1G'!'!Q10?3#QGD' -!2H!32E03!E2%&1!E' -!1'&Q!12!#-E&'0Q'!0EE'QQ!12! R%Q1#E'a!0-!.!>'5'32J'!.!1G'!'I&#D#-03!0-!.!I#5#3!I0Q'!'T0-0\$'D' -!1'QFQ!D!0#D'!.!0!#DJ&25#-\$! 'HH#E#' -EF!#-!1G'!'0.D#-#Q1&01#2-!2H!R%Q1#E'!)!

!

,G'!S%.#E#0&F!E&'01'!.!1G'!'I&#D#-03!>#5#Q#2-!2H!1G'!'V#\$G! I2%&1!0-!.!1G'!'8'5' -%'!>#5#Q#2-!2H!1G'!' V#\$G! I2%&1!NG#EG!G0Q!#DJ&25'!.!0EE'QQ!12!R%Q1#E'!)!0-!0..#1#2-X!B' -#2&!8'Q#.' -!1!T0\$#Q1&01'Q!N'&'! . 'J32F'!.!12!.#Q1&#E1!E2%&1Q!NG#EG!#DJ&25'!.!Q%J' &5#Q#2-!2H!30F!D0\$#Q1&01'Q!1G'&'?F!' -Q%&#-\$!1G0! E2%&1!%Q'&Q!0EE'QQ!7%03#1F!R%Q1#E'!)!, G'!S%.#E#0&F!03Q2!&'G0?#3#101'!.!E2%&1!%?#3.#-\$Q!Q2!1G0!1G'F!0&'! H&#'-!.3F!12!?!21G!Q10HH!0-!.!E2%&1!%Q'&Q)!

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***: d67# '!K%9J\$0!**

!

0-!1G'!'7%'Q!H2&!J&2D21#-\$!G%D0-!&#\$G1Q!1G'!'L2T!'Q10?3#QG'!.!0!V%D0-!8#\$G1Q!A-#!1G0!#Q! D0-.01'!.!12!E22&.#-01'!1G'!'J&'J0&01#2-!0-!.!Q%?D#QQ#2-!2H!Q101'!'J0&1F!&'J2&1Q!0-!.!J'.#E! &'5#'NQ)!, G'!V%D0-!8#\$G1Q! I2DD#QQ#2-!@4D'-.D'-!_!C#33X!9` ;c!N0Q!' -0E1'!.!N#1G!0-!0#D!2H! #DJ&25#-\$!1G'!'2J'&01#2-Q!2H!1G'!'T030N#!V%D0-!8#\$G1Q! I2DD#QQ#2-!)

!

4: +6F(%*!+#!-\$%#3\$%&'!

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,G'!L2T!'Q10?3#QG'!.!1G'!' / 01#2-03!0-#1#01#5'!H2&! I#5#E!<.%E01#2-!@ / 0 I <! ,&%Q1!12!J&25#. '!E#5#E! 0-!.!521'&'!.%E01#2-X!E2DD% -#1F!'DJ2N'&D' -!0-!.!D2?#3#U01#2-X!K-2N3'.'. \$!D0-0\$'D' -!0-!.! -'1N2&K#-\$!0D2-\$!E#1#U' -Q)!6'2J3'[Q!J0&1#E#J01#2-!Q101'!0HH0#&Q!N'&'!#DJ&25'!.!1G&2%\$G!&'H2&DQ!#-! 1G'!'T030N#! 60&3#0D' -!1! NG#EG! 0&'! 0#D'!.! 0!#DJ&25#-\$! J0&1#E#J01#2-! 1G&2%\$G! 1G'&#! '3'E1'!.! &'J&'Q' -101#5'Q)!

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/: U-#'03#-/'*B!#'4!M**&6'\$#F%(\$B!

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!, G'!L25'&-D' -1!1G&2%\$G!1G'! TL>B!000!#. ' -1#H# ' .!7%#EK!N#-!J&2R'E1Q!12!\$' - '&01'!D2D' -1%D!
0- .!E2-H# . ' -E'!12!1G'!E2%-1&F[Q!Q2E#2]'E2-2D#E! . '5'32JD' -1)! , G#Q!E0-!?'!0EG#'5' .!?'F!%1#3#U#-\$!
1G'!050#30?3'!G%D0-!E0J#103!0- .!%-10JJ' .!-01%&03!&'Q2%&E'Q!1G0!1G05'!1G'!J21' -1#03!12!?22Q!1Q2E#2]
'E2-2D#E! . '5'32JD' -1!0- .!EG0-\$'!1G'! -0&&01#5'!2H!1G'!E2%-1&F!0Q!2- '!'2H!1G'!J22&'Q!#-!1G'!
N2&3.)! , G'!7%#EK!N#-!J&2R'E1Q!0&'!12!?'!QG2JJ' .!H&2D!1G'!3#Q1!2H!H30\$QG#J!J&2R'E1Q!'D?' . . ' .!#-!
1G'!D' .#%D!1'&D! -01#2-03! . '5'32JD' -1!'?3%'J&#-1)!

b) ,0&\$'1Q!2-!NG#EG!1G'!E2%-1&F!#Q!D0K#-\$* - +&'*!\$') . *+>* '22*#-E3% . 'Q!5(\$'*)!,5/!B>L!9!
@h'&2!V%-\$'&_)!>'QJ#1'!Q#\$-#H#E0-1!J&2\$&'QQ!1G&2%\$G!&' .%E1#2-!0- .!1%&-#-\$!1G'!E%&5'!2-!
EG#3.!D03-%1#2-!#- .#E012&Q!@



