

EDST5802

XYbhjZlWUhc'b'cZ; jZlYX'Gh XYbhg

Gl a a YlZ&\$&&



7 ci fgY`Cj Yfj]Yk

GHJZ 7 cbhJW`8YhJ`g

7cbj Ybcfg

B Ua Y	9a U`	5j U`UV`]m	@cWJhcb	D\cbY
>UY`M d`>i b[UY"↑ b[4 i bgk "YXi "Ui	9a U``rc`UffUb[Y Ub`Uddc]bha Ybh	A cfj Yb 6fck b 6i]X]b[ž; &+	

GWXcc`7cbhJW`bZcfa Uh]cb

GWXcc`cZ9Xi WJhcb

5fngž8Yg][b`UbX`5fWX]hYW`fY

; fci bX: `ccfz`A cfj Yb`6fck b`6i]X]b[`fi &\$Ł

H. `Z`*`%`f&Ł`-`'` ,)` `%` ++

9. `YXi WJhcb4 i bgk "YXi "Ui

K . ` \hhdg.## k k "Ufng"i bgk "YXi "Ui #YXi WJhcb

5W_bck`YX[Ya YbhcZ'7ci blfm

I BGK`5fjz8Yg][b'UbX'5fWk]fYWi fY?Ybg]b[hcb'UbX'DUXX]b[hcb'Wla di gYg'UfY'Vi]hcb'5Vcf][]bU`

)"("	7 c!cfX]bUHY`ghi XYbhdYfZcfa UbVW`UbX`dfc[fUa`Yj U`i Uh]cb`i g]b[`]bhYfbU`UbX Yl hYfbU`gh XYbhUggYgga YbhXUfU`hc`ja dfcj Y`hYUWX]b[`dfUWVW"	%ž&
)")"&	F YdcfhWYUf mž UWW fUHY`nž`UbX`fYgdYWZi ``mhc`ghi XYbhg`UbX`dUfYbhg#WfYfg UVci hghi XYbhUWX]Yj Ya Ybž`a U_]b[`i gY`cZUWW fUHY`UbX`fY`UV`Y`fYVčfXg"	%ž &
)")"	K cf_`k]h`Wč`YU[i Yg`hc`Wčbghfi VhUWW fUHY`ž]bZcfa Uhj Yž`UbX`hja Y`mifYdcfhg`hc ghi XYbhg`UbX`dUfYbhg#WfYfg UVci hghi XYbh`YUfb]b[`UbX`UWX]Yj Ya Ybh`	%ž &
)")"("	9j U`i %ž`UbX`fYj]gY`fYdcfh]b]aUWX]b]hUV]Xmja g`W`Ub]ga g`]b`h`YcgWcc`h`a`h`Wž]b]c]b]ghUXYbhg#YWY a YYh`h`Y`bYYXg`cZghi XYbhgž`dUfYbhg#WfYfgž`UbX`Wč`YU[i Yg"	%ž &

HYUWX]b[`GhfUHY[]Yg`

5ggYgga Ybh

5ggYgga YbhUg_	K Y][\h	8i Y'8UH'	7ci fgY'@YUfb]b[Ci hWca Yg'5ggYggYX
%'5bbchUH'X'V'V`c[fUd\m	(\$i	%&#%#&\$&&'\$) . \$\$'DA	%ž' &
&" ðYbh]Z]WU]cb'dfc[fUa	* \$i	&+#%#&\$&&'\$) . \$\$'DA	&ž' ž'(

5ggYgga Ybh%'5bbchUH'X'V'V`c[fUd\m

Gi Va]gg]cb'bcH'g. 'H\Y'Xi Y'hja Y#UH'Zcf'h]g'UggYgga YbhUg_]g.') da '598H'fGmXbYmhja YŁ
K YXbYgXUmž%'>Ubi Ufm]&&&
8i Y'XUH'. '%&#%#&\$&&'\$) . \$\$'DA

HUg_'%! '5bbchUH'X'V'V`c[fUd\m! '&\$\$'k cfXg

Gh XYbtg'k]''fYVW]j Y'k f]H'Yb'ZYXVUW_'k]h]b'fk c'k YY_g'cZgi Va]gg]cb

H\]g'Ugg][ba Ybh]g'gi Va]H'X'h'fci [\ Hi fb]h]b'UbX'gh XYbtg'Wb'gYY'Hi fb]h]b'gja]Uf]mifYdcftg"

5XX]h]cbU'XYH]g

DfYdUFY'Ub'UbbchUH'X'V'V`c[fUd\m

H\Y'gY'YW'WX'Ufh'WYg'g\ci`X'BC H']bWl XY'UbmUfh'WYg'dfYgW']VYX'Zcf'fYUX]b['fW'ca di`gcfmicf



5ggYgga Ybh&. ðXYbh]Z]W]h]cb'dfc[fUa

Gi Va]gg]cb'bcHfg. H\Y'Xi Y'hja Y#UHf'Zcf'h]g'UggYgga YbhH]g_'jg.' da '598H'fGmXbYmhja YÉ'H\i fgXUm
&+ '>Ubi Ufmi&\$&&
8i Y'XUHf. '&+#\$%#&\$&&'\$) . \$\$'DA

HUg_'&'!Dfc[fUa 'Zcf']XYbh]Z]W]h]cb'cZ[]ZHX'ghi XYbH]g!') \$\$'k cfXg"H\]g'fUg_'k]''fYei]fY'ghi XYbH]g'hc'dfYdUFY'U
Wc'a dfY\Ybg]j Y'dfc[fUa 'cZ]XYbh]Z]W]h]cb'cZ[]ZHX'ghi XYbH]g"H\Y'dfc[fUa 'g\ci 'X'[]j Y'Wc'bg]XYfU]h]cb'hc'h\Y
UXcdhX'XYZ]b]h]cb'cZ[]ZHXbYggz'Y[U'fYei]fYa YbH]g#dc'Wm[i]XY'jYgž]XYbh]Z]W]h]cb'jbgf'i a YbH]gžXUH
Wc''YW]h]cb#UbU'mg]gž'UbX'h\Y'YXi W]h]cbU']bH]fj YbH]cbg'hc'VY'dfcj]XYX''

Gh XYbH]g'k]''fYW]j Y'k f]H]Yb'Z'YXVUW_'k]h]b'fk c'k YY_g'cZgi Va]gg]cb"

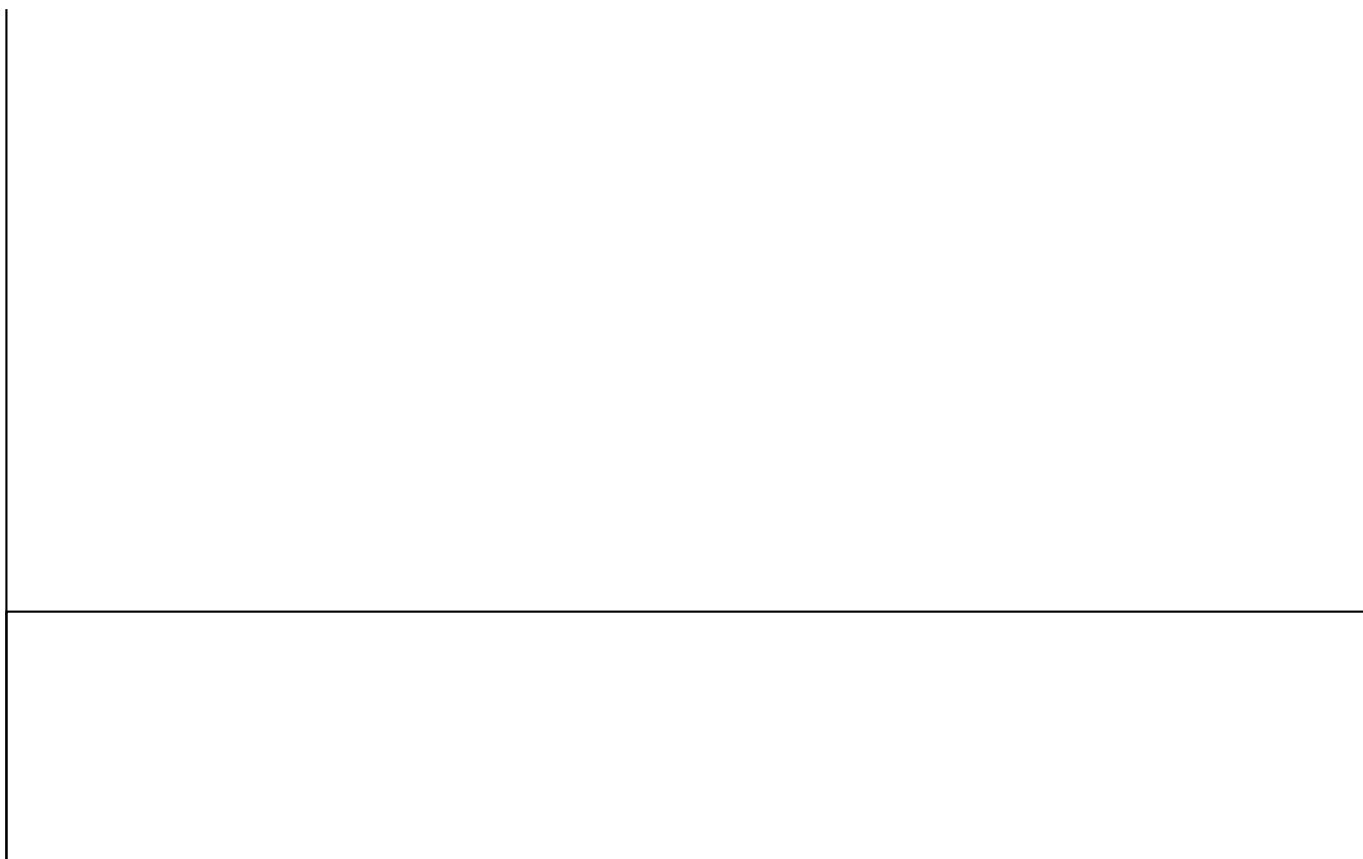
H\]g'Ugg][ba Ybh]g'gi Va]H]YX'h]fci [\ 'Hi fb]h]b'UbX'ghi XYbH]g'W]b'gYY'Hi fb]h]b'gja]'Uf]miYdcfH]g"

5XX]h]cbU'XYH]j]g

DfYdUFY'U Wc'a dfY\Ybg]j Y'dfc[fUa 'cZ]XYbh]Z]W]h]cb'hc'gY'YW]h]g'XYbH]g'Zcf'dUfH]W]dU]h]cb'j]b'cB9'cZ'hY
Zc''ck]b[.

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FI 6F 7# 998657? 'G<99H
98GH), \$&'89BH÷ 75H€B'C: ; ÷ H98 'GHI 89BHG
I BGK 'G7<CC@'C: '98I 75H€B



v7 f]hYfJU

7`Uf]mcZk f]hb

gY`cZU`oYfci g

l gY`d`UddfcdfJU

7`Uf]mc`H`g#Z

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5 HbXUbW F YeI jfYa Ybhg

GWcc`cZ9Xi WUjcb`5HbXUbW F YeI jfYa Ybh

H\Y`GWcc`cZ9Xi WUjcb`fG98E`fYeI jfYg`gh`XYbhg`a`YYhU`a`j]b]a`i`a`U`HbXUbW`fYeI jfYa YbhCZ, \$i`cZU`gWXYXi`YX`WUggYg`f]`%"`YWi`fYg`z`h`h`cf]U`g`z`k`cf_g`cdg`z`gYa`j]bUfg`E`Z`c`f`U`W`i`fgYg`5HbXUbW`j]b`dYfgcb`j]g`fYeI jfYX`Z`c`f`h`h`cf]U`g`z`gYa`j]bUfg`z`UbX`k`cf_g`cdg`k`Y`b`W`i`fgY`U`fY`XY`j]`Y`fYX`j]b`ZUW`!`h`!`ZUW`a`cXY`"`h`j]g`h`Y`fYg`dcbg]V`j]h`mcZ`gh`XYbhg`h`Y`bgi`fY`h`U`h`h`Y`j]f`U`HbXUbW`j]g`fY`W`f`Y`X`Z`c`f`h`Y`ZUW`h`ZUW`Y`j]h`Y`f`Vm`Y`Y`W`f`cb]Wa`Y`U`bg`c`f`j`j]U`Ub`U`HbXUbW`fY`j]g`h`Y`f`5HbXUbW`j]b`c`b`j]b`Y`c`f`V`Y`b`X`Y`X`a`cXY`k`j]`V`Y`U`gg`Y`g`Y`X`h`f`ci`[\`X`][`j]h`":`i`f`h`Y`f`j]b`Z`c`f`a`U`h`c`b`W`b`V`Y`Z`c`i`b`X`[YfY`](#)"`

7 ci fgY`GWXYXi`Y`

[J\]Yk`WUgg`h`a`Y`h`U`V`Y`](#)

H]a`Y`h`U`V`Y`

8UH#A`cXi`Y`	HmdY`	7`cb`h`Y`b`h`
%`	A`cXi`Y`	8`Y`Z]b`j]h`c`b`c`Z`j]XY`b`h`j]W`U`h`c`b` Di`f`d`c`g`Y`c`Z`j]XY`b`h`j]W`U`h`c`b` -`g`gi`Y`g`h`c`V`Y`W`c`b`g]X`Y`f`Y`X`j]b`h`Y`X`Y`j`Y`c`d`a`Y`b`h`c`Z`U`d`f`c`[`f`U`a`c`Z`j]XY`b`h`j]W`U`h`c`b`
&`	A`cXi`Y`	@`Y`[`U`f`YeI`j]f`Ya`Y`b`h`g`f`Y`U`h`b`[`h`c`h`Y`j]X`Y`b`h`j]W`U`h`c`b`c`Z`[`j]Z`h`X`g`h`X`Y`b`h`g` D`c`j]W`h`i`[`i`j]X`Y`j]b`Y`g`f`Y`U`h`b`[`h`c`h`Y`j]X`Y`b`h`j]W`U`h`c`b`c`Z`[`j]Z`h`X`g`h`X`Y`b`h`g`
`	A`cXi`Y`	h`b`h`" `[`Y`b`W`f`h`Y`g`h`g` 5`W`k`j]Y`j`Y`a`Y`b`h`h`Y`g`h`g`
(`	A`cXi`Y`	B`c`a`j]b`U`h`c`b`g`#`f`U`h`b`[`g`W`U`Y`g`

*	A cXi `Y	<p>⇒YbhjZVWhjcb`cZtk jW`YI WdHjcbU`gh XYbhtg</p> <p>⇒YbhjZVWhjcb`cZtk jW`YI WdHjcbU`gh XYbhigi V! dc di `Uhjcbg</p>
+	A cXi `Y	<p>⇒YbhjZVWhjcb#UggYgga YbhicZVWYUhj jhm</p> <p>8 j] Yf[Ybhik]b_]b[`hYghg</p> <p>7 cbgYbgi U`UggYgga YbhikWb]ei Y</p>
,	A cXi `Y	<p>⇒YbhjZVWhjcb`cZi bXYfUWk]Yj]b[`[]ZkX`gh XYbhtg</p> <p>9ei j] UYbW`cZkY`Wta a cb`mi gYX`]XYbhjZVWhjcb a Ykcxg</p>

Gi Va]gg]cb`cZ5ggYgga YbhiHUg_g

Hi fb]h]b`Gi Va]gg]cb

Ʒmci`YbWci bHYf`U`dfcV`Ya`k` \Yb`UHfYa` dh]b[`hc`gi`Va`]hmc`i`f`Ugg][`ba`YbhiHfci`[`\`Hi`fb]h]b`z`d`YUgY`
HY`Yd`cbY`9I`HYfbU`Gi`ddcfhcb`-`,`)`"``"``%cf`Ya`Uj`h`Ya`cb`YI`HYfbU`HY`hgi`ddcfh4`i`bgk`"YXi`"Ui`"Gi`ddcfh`
`lci`fg`UfY`,`.\$\$Ua`-`-%\$.\$\$da`cb`k`YY`XUmg`UbX`-`.\$\$Ua`-`).\$\$da`cb`k`YY`YbXg`f1`*)`XUmg`U`mY`Uf2`Ʒmci`
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`YbhiXi`Y`hc`U`Zji`hk`]h`Hi`fb]h]b`mci`a`UmUdd`mZc`f`Ub`YI`HYbg]cb`z`Vi`hmc`i`
a`i`ghfYhU]b`mci`f`h]W`Yhbi`a`VYf`Zca`9I`HYfbU`Gi`ddcfhfU`cb[`k`]h`Ubmc`h`Yf`fY`Yj`UbhXcW`a`Ybhtg`L`hc`
]bWi`XY`Ug`Yj`]XYbVW`hc`gi`ddcfhmc`i`f`YI`HYbg]cb`Udd`]W]h]cb`"Ʒmci`Ya`Uj`9I`HYfbU`Gi`ddcfhmc`i`k`]`
Ui`hca`UH]WU`mifYW]j`Y`U`h]W`Yhbi`a`VYf`z`Vi`h]Zmci`HY`Yd`cbY`mci`k`]`bYYX`hc`gdYW]Z]WU`mUg`Zc`f`cbY`
Hi`fb]h]b`U`gc`dfcj`]XYg`i`dXUH`g`cb`h`Y]f`gmghYa`g`hU`h`g`cb`Hk`]hYf`"

;`YbYfU`mz`UggYgga`YbhiUg_g`a`i`ghVY`gi`Va`]hYX`Y`YWfcb]WU`mj`]U`Y]h`Yf`Hi`fb]h]b`cf`U`A`ccX`Y`
Ugg][`ba`Ybhi`h]b]bg]h]bVW]g`k` \YfY`h`g`]g`bchdcgg]V`Yz`]hk`]`VY`ghUHYX`cb`mci`f`Wci`fgY`g`A`ccX`Y`g]h`k`]h`
U`HYfbU]h]`Y`gi`Va`]gg]cb`XYhU]g`"

:`cf`]bZcfa`Uh]cb`cb`lck`hc`gi`Va`]hUgg][`ba`Ybhtg`cb`]bY`j`]U`A`ccX`Y`.`hhdg`#gh`XYbhi`bgk`"YXi`"Ui`Ack`!
gi`Va`]hUgg][`ba`Ybhta`ccX`Y`"

5WUXYa]W< cbYgmiUbX'D`U[]Uf]ga

D`U[]Uf]ga]g'i g]b['hY'k cfXg'cf]XYUg'cZchYfg'UbX'dfYgYbh]b['hYa 'Ug'mci f'ck b''#WUbb'fU_Y'a Ubm
Z'ca gZ'Zca 'XY'jVYfUHY'WXUhf]b['hc'UWw]XYbhU'mWcdm]b['Zca 'U'gci fW'k]h'ci hUW_bck `YX[Ya Ybh'

I BGK ' [fci dg'd`U[]Uf]ga]bhc'hY'Zc`ck]b['WUHY[cf]Yg.

7cdm]b[. 'l g]b['hY'gUa Y'cf'j Yfmg]a]Uf'k cfXg'hc'hY'cf][]bU`hYl hcf]XYU'k]h'ci hUW_bck `YX[]b['hY
gci fW'cf'i g]b['ei chU]cb'a Uf_g''H\]g']bW' XYg'Wcdm]b['a UHYf]U'gZ]XYUg'cf'WcbW'dhg'Z'ca 'U'Vcc_ž'Ufh]WYž
fYdcfhcf'chYf'k f]HYb'XcW'a Ybhž'dfYgYbhU]cbž'Wca d'cg]h]cbž'Ufh'cf_ž'XYg][bž'XfUk]b[ž'WfW]f'f'Wca di h'f
dfc[fUa 'cf'gcZk UfYžk YVg]h'ž]b'f'f'Yh'z'chYf'Y'Y'Wfcb]WfYgci fW'ž'cf'UbchYf'dYfgcb'f]g]g][ba Ybhk]h'ci h
Uddfcd]UHY'UW_bck `YX[Ya Ybh'

#Uddfcd]UHY'dUfUd\ fUg]b[. '7 \Ub[]b['U'Zk 'k cfXg'UbX'd\ fUgYg'k \]Y'a cghm'fYU]b]b['hY'cf][]bU'
]bZ'ca U]cbž'gh' W' fY'UbX'f'dfc[fYgg]cb'cZ]XYUg'cZchY'cf][]bU'k]h'ci hUW_bck `YX[Ya Ybh'H\]g'U'gc
Udd]Yg']b'dfYgYbhU]cbg'k \YfY'gca YcbY'dUfUd\ fUgYg'UbchYf'g]XYUg'cf'k cfXg'k]h'ci hWfYX]h'UbX'hc
d]YW]b['hc[YhYf'ei chYg'UbX'dUfUd\ fUgYg']bhc'U'bYk 'k \c'Yžk]h'ci hUddfcd]UHY'fYZYfYbW]b["

7c`i g]cb. 'K cf_]b['k]h'chYfg'Vi hdUgg]b['cZchY'k cf_'Ug'U'dYfgcb'g']bX]]Xi U'k cf_'7c`i g]cb'U'gc
]bW' XYg'dfcj]X]b['mci f'k cf_'hc'UbchYf'gh' XYbhZ'f'hY'di fdcg'Y'cZhYa 'd`U[]Uf]g]b[ž'dUm]b['UbchYf
dYfgcb'hc'dYfZ'ca 'Ub'UWUXYa]WfUg_ž'gh'U']b['cf'UW'ei]f]b['UbchYf'dYfgcb'g'UWUXYa]Wk cf_'UbX'Wcdm]b[
]h'cZ'Yf]b['hc'Wca d'Yh'UbchYf'dYfgcb'g'k cf_'cf'gYY_]b['dUma YbhZ'f'Wca d'Yh]b['UWUXYa]Wk cf_'"

#Uddfcd]UHY'W]h]cb. '7]b['gci fW'g'k \]W' \Uj Y'bhVYYb'fYUXžk]h'ci hUW_bck `YX[]b['hY
"gYWcbXUfm'gci fW'Z'ca 'k \]W' _bck `YX[Y'cZhYa '\Ug'VYYb'cVhU]bYX"

8i d`]WU]cb'f'f'gY'Z'd`U[]Uf]ga "E'Gi Va]h]b['mci f'ck b'k cf_ž]b'k \c'Y'cf]'b'dUfh'žk \YfY']h'Ug'dfY]]ci g'm
VYYb'dfYdUfYX'cf'gi Va]h'YX'Z'f'UbchYf'UggYgga Ybhcf'W'ei fgY'Uhl BGK 'cf'UbchYf'i b]j Yfg]m'

7c'ffYWh'fYZYfYbW]b['dfUW]W'g'

H\Y'[I BGK '5WUXYa \]WG_ \]'g'gi ddcfh](#)hcZ'Yfg'fYgci fW'g'UbX']bX]]Xi U'W'bg' 'h]h]cbg''Gh' XYbhg'UfY'U'gc
fYa]bYX'h'UhWfYZ'`h]a Y'a UbU[Ya Ybh]g'Ub'ja dcfh'UhdUfh'cZ'gh' X'm' C'by'cZhY']XYbh]ZYX'Wli gYg'cZ
d`U[]Uf]ga]g'dccf'h]a Y'a UbU[Ya Ybh'Gh' XYbhg'g'ci 'X'U'ck'gi Z]W]Ybh]h]a Y'Z'f'fYgYUfW'ž'XfUZ]b['UbX
dfcdYf'fYZYfYbW]b['cZ'gci fW'g']b'dfYdUf]b['U''UggYgga Ybh]h]a g"

I BGK '@]VfUfm\Ug'[hY'9@G9'hc](#)'Uj U]UV'Y'hc'Ugg]gh'mci 'k]h'mci f'gh' XmiUhl BGK "'9@G9']g'XYg][bYX'hc
]bh'cXi W'bYk'gh' XYbhg'hc'gh' X]b['Uhl BGK 'Vi h]h'Wb'U'gc'VY'U' [fYUhfY'ZYg\Yf'Xi f]b['mci f'gh' X'm'
7ca d'Yh]b['hY'9@G9'h'hc]U'UbX'ei]n'k]''YbUV'Y'mci 'hc.

