

July 13, 2012

VIA EMAIL AND FEDERAL EXPRESS

Elizabeth M. Murphy
Secretary
Securities and Exchange Commission
100 F Street, NE
Washington, D.C. 20549-1090

Re: **File No. SR-NYSE Arca-2012-28 – Response to Comment**

Dear Ms. Murphy:

This letter replies to the comment dated June 19, 2012 that NYSE Euronext (“NYSE ARCA or the “Exchange”) submitted to the Securities and Exchange Commission in response to this firm’s comment regarding the above-referenced rule filing, in which the Exchange proposes to list and trade shares of the JPM XF Physical Copper Trust (the “Trust”) pursuant to NYSE Arca Equities Rule 8.201.

We represent Southwire Company, Encore Wire Corporation, Luvata, and AmRod, as well as RK Capital LLC. Southwire is based in Georgia, Encore in Texas, Amrod in New Jersey, and Luvata has plants in Ohio, Connecticut, Missouri, Kentucky, California, Wisconsin, Texas and Florida. Together these companies comprise about 50% of the copper fabricating capacity of the United States. RK is an international copper merchant with offices in London and New York.

The Exchange asserts that the arguments set forth in our comment letter dated May 9, 2012 are based on “incorrect information” or “insufficiently substantiated.” We disagree.

I. The Trust’s Physical Copper Holdings

First, the Exchange states that, contrary to assertion in our letter, “The Trust will not invest in London Metals Exchange (“LME”) warranted copper” and that “moreover, the Exchange understands that it is unlikely that the Trust or its authorized participants (Aps”) would take LME-warranted copper “off-warrant” in connection with the Trust’s operations. In fact, as demonstrated below, the only substantial source of copper available to meet the Trust’s requirements, i.e., that it be acceptable brands meeting LME specifications for warranted copper, is warranted copper in LME warehouses. The Exchange can point to no substantial sources of such copper available for immediate delivery to the Trust other than warranted copper in LME warehouses because, as we shall show, there are none.

Second, the Exchange suggests that our concern that the Trust may pull as much as 61,800 metric tons of copper off-market is exaggerated because only a fraction of that amount will be required under the rules of the Exchange for the shares initially to be offered. In fact, as we shall show, that is the specific amount identified in the Trust's draft prospectus from July 11, 2011.

The Exchange next suggests that we did not substantiate our assertion that the "sole purpose" of the Trust is "to remove from the market a physical metal in short supply." In fact, as shown below, that purpose is amply supported by statements from the Trust's draft registration statements, from analyses showing only a small amount of copper is actually available for immediate delivery, the amount of which will be substantially if not completely depleted by the Trust if its offering (and the companion offering by BlackRock) are both successful, and by statistics showing that more copper is consumed annually than is produced, i.e., that copper is in deficit. For these reasons, the copper to be removed from the market by the Trust (and by others marketing the same form of derivative) will not only result in sharp price spikes and price volatility, but certain suppliers, most likely from the United States, will be unable to get supply.

More specifically, the Exchange states that we were wrong to suggest that the Trust will remove LME-warranted copper from the LME system. The Exchange thus states that "As both the Notice and the Registration Statement make clear, the Trust will only be permitted to hold copper that is not LME warranted." (emphasis in text) However, that is beside the point. The fact that the Trust will only be permitted to hold copper that is not warranted does not mean the Trust will not be acquiring warranted copper and then taking it off-warrant when, as we have said, and will show, that is the only physical copper likely to be available to satisfy the Trust's requirements. Indeed, the Trust would have to take such copper "off-warrant" because otherwise the holding of such warranted copper in an LME warehouse would subject the Trust to the LME's lending obligations and the draft registration statement makes clear that, consistent with its intent to take the Trust's copper off-market, the Trust does not intend to be subject to any of the LME's rules, including rules that would require the Trust to lend any of its copper.

The Exchange then quotes the draft Registration statement's assertion that "LME-approved warehouses may hold copper that is not registered with the LME (i.e., not underlying the issuance of an LME Warrant." That, of course, is precisely the point. The Trust can take delivery of copper that is registered with the LME, i.e., warranted, from LME-approved warehouses in the United States, such as the Henry Bath warehouses in New Orleans, which are owned by JPM and, without even having to incur the costs of moving the tonnage, simply take the warrants "off-warrant," thus transferring ownership of the metal to the Trust by keeping it exactly where it is.

The Exchange next states that "[t]he Exchange understands that the Sponsor currently anticipates that the Trust will be permitted to hold copper in both LME-approved warehouses and warehouses in LME-approved jurisdictions that are not part of the LME system." That statement, even if true, doesn't mean that the Trust will be able to acquire copper from non-registered sources. All that means is that, once acquired, the Trust is reserving the right to transfer such metal to a warehouse in an LME location, such as New Orleans, St. Louis or Baltimore, where storage costs might be less. The Exchange adds that it "understands that

none of the copper held by the Trust in any such warehouse locations will be LME-warranted.” Again, this is beside the point because once acquired by the Trust, the copper will have to be taken off-warrant to avoid being subject to LME lending rules which would potentially force the copper back into the market.

The Exchange also states that “The Sponsor has informed [the Exchange] that it currently expects that the Trust will initially be permitted to hold copper located in Shanghai, which does not presently have any LME-approved warehouses, and copper may also initially be held in the Netherlands (Rotterdam), Singapore, South Korea and the United States.” However, as we have demonstrated, the Notice and draft Registration Statement make clear that the Trust will be acquiring copper from the locations with the lowest cost premiums. And, as we have also already demonstrated, the premiums right now are the lowest in the United States and have been the lowest in the United States for the past seven years. That means that, even if the Trust is permitted to hold copper elsewhere, it will almost certainly be getting most of its copper from LME warehouses in the United States. What is more, given that China is the largest copper consuming country in the world – consuming 40% right now of the world’s production – it is difficult to expect the Trust to be acquiring any significant quantities of copper from China.

The Exchange further states that “the Sponsor has informed the Exchange that overall physical copper stocks – including stocks that are “immediately available for sale” – are substantially larger than the Comment Letter would suggest.” Letter, p. 3. However, the only copper that can be acquired by the Trust from the physical market, either initially or by Authorized Participants is copper that is “immediately available for sale” and the only such LME-grade copper known to exist is copper registered in either LME or Comex warehouses. Therefore, the fact that “overall physical copper stocks” may be substantially larger than stocks that are “immediately available for sale” is irrelevant because such stocks are simply not available to be acquired. These other stocks include copper that is subject to long-term contracts, and is generally held in the normal course by producers and consumers as buffer stocks to ensure smooth running of their logistics and to meet contingencies. Other such stocks consist of stock in bonded warehouses outside China – to avoid high Chinese tariffs – which are destined for the Chinese market. None of it, however, is available for purchase by the Trust.

The Exchange compounds the misinformation by including a table it obtained from JPM which purports to break down “registered and non-registered market stocks as of May 2012, as well as annual consumption and production estimates as of May 2012.

The table claims to report “total market stocks” as of May 2012 (emphasis added) of 2,798,000 metric tons, which is broken down to include 437,471 metric tons of copper in LME stocks, Shanghai Exchange stocks, and Comex stocks, and 2,360,529 metric tons in “total non-registered stocks.” Use of the term “market” by the Exchange in reference to “total non-registered stocks” suggests that such tonnage is actually available for purchase at market. However, there is no evidence that any of the 2,360,529 metric tons of “non-registered stocks” would be available for the Trust to purchase, and the tonnage in the Shanghai Exchange warehouses is for Chinese customers only. Consequently, the only tonnage that would be available to the Trust to purchase for its ETF would be the tonnage in the LME and Comex warehouses.

The absence of these so-called “hidden” stocks of copper – here denominated as “non-registered stocks” supposedly available at “market” -- that proponents of copper-backed ETFs have been pointing to as proof that there exists an abundance of copper available for delivery to the ETF outside of LME warehouses was documented last year by forensic copper statistician Bloomsbury Minerals Economics Ltd. Consultants (“BME”) and is reflected in the three charts attached hereto as Exhibit A.

Table 1 is a summary table showing total annual refined output and consumption between 2002 and 2010, along with estimates for 2011 and 2012, plus exchange stocks and total stocks for that period. The data also shows pricing per metric ton increasing from \$1560 per metric ton in 2002 to the much higher levels where they are today.

Table 2 provides a breakdown of all refined copper stocks for each year from 2002 through 2012. “Normal country stocks” refers to total amounts at producers, at consumers, and in domestic transit. “Other country stocks” refers to exchange stocks, strategic stocks held by government agencies in China (the Strategic Reserve Bureau”) and to a lesser extent in South Korea’s Public Procure Service, both of which hold what might be termed “emergency stocks,” for release to local manufacturers in times of extreme supply stress. The term “abnormal country stocks” which is included as part of “other country stocks” refers to amounts held by producers and consumers as buffer stocks to ensure the smooth running of their logistics and to meet contingencies.

BME has told us that it is usual for both producers and consumers to have a considerable holding of “abnormal” stock, but at present this is not the case because consumers, in particular, have drawn down inventories to the bare minimum in order to reduce working capital requirements at a time of high copper prices.

The final category consists of “non country stocks” which is refined copper in international transit and miscellaneous bonded stocks, which are those that have not passed through customs in importing countries. BME reports that China is the major location for this bonded warehouse stock, as merchants with stock destined for China store the metal in such warehouses in order to avoid paying China’s high value added tax on imported metal until such time as Chinese prices and premiums are attractive enough for them to do so.

Table 3 shows the refined copper market in detail to reflect liquid stocks, i.e., those stocks available for immediate delivery to satisfy an ETF, and non-liquid stocks. Here, the chart shows the only stocks which would be available to meet an ETF’s requirements are exchange stocks because the only other source of such liquidity would potentially be “abnormal country stocks” which, as indicated above in Table 2, is mostly held by producers to meet contingent demands from their customers, and bonded stocks, which is mostly held outside China for the Chinese market.

Table 3 also shows that the total amount of liquid stocks is expected to drop from 1,425 million metric tons in 2010 to 808,000 metric tons in 2011 and to 435,000 metric tons in 2012 – before taking into account the removal of any metric tons from one exchange warehouses to satisfy the ETFs. All other stocks are already committed to the supply chain or held in strategic reserve and cannot be considered available for immediate delivery. Table 3 also shows

how little liquid stock is currently available – and projected to be available in 2011 and 2012 – in terms of days of consumption.

BME's analysis was the subject of a report by Reuters on September 9, 2011, a copy of which is attached hereto as Exhibit B. Reuters reported as follows:

“BME provides a comprehensive estimate of stocks at every stage of the copper supply chain in its monthly “Copper Briefing Service.” And, as it happens, its estimate for total refined copper stocks at the end of last year is higher than CRU's [another UK-based commodities research house] at 4.027 million tons, including exchange inventory. Usefully, though, they provide a detailed breakdown of their assessment, which runs pretty much as follows. Refined metal stocks held by producer and consumers totaled 1.079 million tons at the end of 2010. Such holdings are categorized by BME under the heading “Normal Country Stocks.” This metal forms part of the “normal” physical copper supply chain. All producers hold inventory. So do all consumers. If they didn't, the supply chain would not function. Nor would it function were metal not always moving between producer and consumer. BME estimates that 332,000 tons were in domestic transit and another 499,000 tons in international transit at the end of last year. Add that to the “normal” industry stock figure and you already have close to 2 million tons that is either waiting to be shipped by producers, already en route to consumers, or waiting to be used by fabricators.”

The Reuters article points out that “[o]nly if the supply chain collapses will such metal ever see the statistical light of day in the form of exchange inventory.”

Because the 2.3 million tons of “total non-registered stocks” in the NYSE's chart consists mainly of metal in the supply chain, this is metal which by definition will not be available to be acquired by the Trust. Also not available to the Trust is metal which is being held as buffer stock by producers and consumers, as well as metal in strategic reserve by China and by South Korea. The balance of such “non-registered stock” consists of stock in bonded warehouses but here too the evidence is that such metal is in China destined for the Chinese market. In short, the only cover available to satisfy the Trust would be copper from the LME and Comex warehouses and, because the Trust represents that it intends to acquire copper from locations where premiums are the lowest, that copper will almost certainly come from LME warehouses in the United States. Significantly, the Exchange's comment letter nowhere disputes that premiums are lowest in the United States.

The Exchange nevertheless suggests that “[t]he Sponsor has informed NYSE Arca that it currently expects that the Trust will initially be permitted to hold copper located in Shanghai, which does not presently have any LME-approved warehouses.” Letter at 3, n. 7. Being permitted to hold copper in China, however, is quite different from actually being able to acquire it. China is the largest copper consuming country in the world, currently consuming at least 40% of the world's annual production. Even if such copper could be acquired for the Trust, it is difficult to imagine how the world's most copper dependent country could ever be deemed a viable source of supply for an ETF. We understand that from time to time a small portion of copper in bonded warehouses in China might become available to the market – but there is no guarantee that such copper will ever be available or that, even if it is, it will be copper that can be acquired at the least cost premium.

The Exchange dismisses as speculative our comment that the Trust's "Authorized Participants" – broker-dealers who would be permitted to acquire creation units from the Trust – "will do so by acquiring LME-warranted copper and taking it off-warrant" so that it can be deposited with the Trust in exchange for Shares" because "[t]he Sponsor has informed the Exchange that the economics do not support the suggestion given the large supply of non-warranted physical copper and the cost and time that would be required in order to take LME warranted copper off warrant solely for the purposes of creating Shares of the Trust." Letter at 3. We do not understand this comment.

First, the Trust provides that "Authorized Participants" looking to acquire creation units must first obtain a minimum of 25 metric tons of LME grade copper per unit to get 2500 shares. The only known market by which an Authorized Participant may obtain LME grade copper available for immediate delivery, which is what an AP needs to obtain a creation unit, is from owners of LME grade copper in LME warehouses. Authorized participants may easily obtain such copper by purchasing long positions on the LME and taking delivery. If they do so, they would acquire the inventory at "LME flat," i.e., the prevailing LME price with no premium. However, there is no guarantee where such copper might be. Thus, such copper might be at locations that might be too expensive to transfer to a Trust warehouse.

The other way to acquire the copper is simply to purchase warrants from warrant-holders of copper in LME warehouses with the least location cost premiums. As we have said, those would be warrants from locations in New Orleans, St. Louis and Baltimore, where premiums are the cheapest. Once acquired, the Authorized Participant would be responsible for transferring the copper to one of the Trust's warehouses. The Trust owns the Henry Bath warehouses in New Orleans, among other places, and represents that it expects to store its copper in such warehouses. Thus, if the Authorized Participant is able to acquire warrants for copper located in one of the Henry Bath warehouses in New Orleans, the Authorized Participant can pay the lowest premiums for delivery and "deliver" the required amount of copper without having to incur any material delivery costs at all. Indeed, for all intents and purposes, such copper can stay exactly where it is. Based on these economics, it is therefore reasonable to assume that that is how the Trust will acquire all or most of the copper it intends initially to remove from the market.

The Exchange's suggestion that there is instead a "large supply of non-warranted physical copper" available is, as we have said, unsubstantiated and, based on the research we've seen, not credible. Equally unsubstantiated and lacking in credibility is the further suggestion that taking the warranted copper "off-warrant" would involve too much "cost and time." As demonstrated above, taking LME warranted copper off-warrant can be done with little or no cost by simply purchasing copper warrants at the least cost premiums from locations where Henry Bath already stores LME-warranted copper. What is more, the ease with which market participants can already squeeze the copper market today – even without an ETF having been issued -- by simply acquiring a substantial percentage of LME warrants – likewise demonstrates that so-called "hidden" or stealth supplies of copper, which can ease an artificially induced squeeze, simply do not exist, and therefore cannot be counted on to address any near term supply shortages that were to result if one or more ETFs were to make things worse by, as will inevitably be the case, depleting LME copper stocks even more. Thus, one of our clients, Southwire, recently forwarded to us an article from Reuters dated July 2, 2012, entitled, "Copper

Market Expects Squeeze, Big Holding Appears,” which shows how fragile the market for copper available for immediate delivery already is, even without an ETF drawing down the supply. A copy of the article is attached as Exhibit C.

The Exchange next suggests that any concern about copper being taken off warrant and thus off-market “does not account for the fact that Shares will be both purchased and sold, and redemptions of Creation units will return copper to the physical markets.” Letter at 3. However, there is no guarantee that anyone purchasing shares of the Trust will have any interest in redeeming the shares for physical copper. Indeed, there are a number of reasons why investors would not want to bear that risk or assume that burden. First of all, if the Trust succeeds in removing enough metal from the market so as to inflate prices artificially, holders of shares can profit simply by selling their shares. Second, if any investor actually wanted to redeem shares for copper, the investor would not know from where the copper would be delivered or what brands would be received. Thus, the investor would have to bear logistical risks it would not otherwise have to bear. By contrast, a copper fabricator would be able to acquire metal direct from the LME warehouse closest to the fabricator’s location and, at the same time, determine which brands of copper to take. Moreover, a copper fabricator is unlikely to invest in the Trust, and incur the risk that the price might fall – simply to acquire the right to redeem such shares for copper which may not be acceptable in terms of brand from locations which may be logistically too impractical. In short, it is possible that the Trust’s redemption rights might not be exercised at all.

II. Size of the Trust and Potential Copper Market Impact

The Exchange tries to convey the impression that even if the Trust will be taking warranted copper from the LME warehouses off-market, there will be little or no impact because the initial size of the offering will be too small to make any difference. Thus, the Exchange says that even though the Trust initially seeks to register 6,180,000 shares, the Trust will not immediately issue that number of shares, but would rather only issue shares as investor demand warrants, and that even if there is sufficient investor demand, the Trust might not need to take more metal off market -- “to the extent that such issuances are offset by redemptions” of physical metal.

Specifically, the Exchange states that “the Sponsor currently expects that the value of the initial Creation Units issued by the Trust will not exceed \$75 million, which corresponds to approximately 10,185 metric tons in the “current cheapest to deliver location for the Trust as of June 6, 2012.” (emphasis added.) However, we understand that these is the “initial” size of the Trust only because Exchange regulations require that, for liquidity purposes, in order for shares to be listed in the first place, they must meet this initial threshold level. Thus, there is no assurance that this Exchange-required minimum will have any bearing at all on the ultimate size of the offering. The Exchange states that based on this regulatory minimum, our claim that “the Trust will result in the ‘immediate removal from the market of as much as 61,800 metric tons of such copper’ is unsubstantiated.” Letter, page 4 (emphasis added).

The 61,800 metric ton figure comes directly from the Trust’s draft July 11, 2011 prospectus which states in pertinent part as follows:

“The Trust estimates, based upon an LME settlement price of copper of \$9,432 per metric ton on July 6, 2011, that its registration of 6,800,00 shares under this registration statement is roughly equivalent to a hypothetical maximum offering price of \$582,897,600, or the holding of approximately 61,800 metric tons of copper by the Trust (assuming all registered shares).”

Draft Registration statement, p. 21.

And far from representing that the offering “will not exceed \$75 million” corresponding to approximately 10,185 metric tons, the Trust further states that “[t]he Trust Agreement places no limit on the amount of copper the Trust may hold. Moreover, the Trust may issue an unlimited number of shares, subject to registration requirements, and thereby may in theory acquire an unlimited amount copper.” *Id.* at 20.

The Exchange dismisses as “speculative and misplaced” our concern that the Trust will have the effect of enticing investors seeking quick profits to participate in an artificially inflated market because the more that is invested in physical copper backed ETFs, the more such copper will be removed from the market. . . thus forcing prices even higher.” However, the Trust’s draft registration statement states in pertinent part as follows, “[b]ecause there is no limit on the amount of copper that the Trust may acquire, the Trust, as it grows, may have an impact on supply and demand for copper that ultimately may affect the price of the shares in a manner unrelated to other factors affecting the global markets for copper.” *Id.* at 20. In short, far from being “speculative and misplaced,” our concern about the Trust creating an artificially inflated market is reflected directly in the Trust’s draft registration statement.

Similarly, the Exchange dismisses as “speculative and misplaced” our concern that “as investor demand for [the Trust’s Shares] wanes. . . the bubble will burst, leaving in its wake a glut of physical copper that the [Trust] will be forced to dump on the market,” causing a decline in prices that harms both the physical copper market and investors in the Shares. Exchange Letter, p. 4. However, the Trust’s draft prospectus warns of this as well, stating, “[i]f the amount of copper acquired by the Trust were large enough in relation to global copper supply and demand, in-kind creations and redemptions of shares could have an impact on the supply and demand for copper unrelated to other factors affecting the global markets for copper. Such an impact could affect the prices for copper and, as a result, could affect the price at which shares are traded on the Exchange or the value of future Creation Units created or redeemed by the Trust.” Draft Registration Statement at 21. In short, the concerns we raised, which the Exchange dismisses as “speculative and misplaced,” were expressly acknowledged by the Trust itself.

The Exchange nevertheless dismisses these concerns as merely theoretical. Letter, p. 5. Thus, the Exchange concedes that “[i]f extremely high investor demand for shares of an ETV caused it to grow very rapidly relative to the size of the market for the underlying asset, such demand could place upward pressure on prices of the underlying asset.” Here, as we have shown, the size of the market for copper available for immediate delivery is relatively small in that there is only 230,000 metric tons available on the LME, with an additional 60,000 metric tons available on the Comex. The Trust proposes to remove as much as 61,800 metric tons or about 21.3%, while BlackRock, which has, through the Exchange, recently asked that its own

shares be listed, proposed to remove more than 120,000 metric tons, which together, constitutes about two thirds of the entire combined LME and Comex market.

In short, given the small size of the overall market, one would need not “extremely high investor demand” in order for the size of the ETFs of the Trust and BlackRock to grow very rapidly relative to the size of the overall market for the underlying asset, which is copper available for immediate delivery and, as a result, even modest demand could place upward pressure on prices of the underlying asset. Indeed, the amount of copper proposed to be removed from the market, conceivably almost immediately, or certainly within a few weeks, would greatly exceed the amount of copper that normally flows in and out of the LME warehouses on any given day or week. In this regard, we are enclosing as Exhibit D a chart that tracks the total inflow and outflow of copper in LME warehouses over the past two years. These ETFs, if launched, could therefore trigger enormous price spikes simply because of the huge volumes that would be withdrawn from the market relative to the limited size of the market overall. The Exchange argues that our concerns about artificial price spikes and massive redemptions over a very short period of time are not supported by evidence and as such, they are “merely speculation.” We believe these assertions are supported by the substantial evidence we have provided as to the size of the market we expect to be impacted, and that the Exchange’s assurances to the contrary are not in fact supported by evidence and are themselves mere speculation.

III. Purpose and Objective of the Trust

The Exchange takes issue with our assertion that the “sole purpose” of the Trust is to “remove from the market a physical metal in short supply” claiming that the letter offered no basis for this statement or for other claims regarding the intent of the Sponsor and the Exchange in seeking to list and trade the Shares. Letter, pp. 5-6. The Exchange asserts instead that its intent, and that of JP Morgan Chase, is to “create a competitive product that offers retail investors access to the copper market.” However, there is substantial evidence to suggest otherwise. First of all, it goes without saying that if JP Morgan Chase agreed with one of its customer to remove from the market substantial amounts of copper from the LME warehouses, with the understanding that such removal would artificially inflate prices, such conduct would be per se anticompetitive, i.e., a direct violation of Section 1 of the Sherman Act. Here, the effect of what the Trust is proposing is to do the same thing – except that instead of using one of its customers to underwriting the cost, the Trust proposes to use investors.

The Exchange states that because the Authorized Participants will be permitted to acquire creation units of shares “using copper in multiple global locations,” the Trust intends to provide a “larger, more liquid supply of copper than would be available if creations and redemptions were only permitted using copper held in a single location.” However, the removal of tens of thousands of metric tons of copper from LME warehouses will make the supply of copper much less liquid – not more liquid as the Exchange contends. And the overall tightening of supply which will result will have spillover effects in a wide variety of markets, particularly in the United States. That is because the Trust makes clear that it intends to acquire copper from locations where the premiums are the lowest, and that, as we have said, is in the United States. Therefore, the United States is likely to suffer the great impacts.

The Exchange claims that the Trust “offers complete transparency through its website, where all of the Trust’s holdings as well as additional detailed data regarding the Trust’s operations will be available.” However, what the Trust is not disclosing is the fact that the only copper that it and its Authorized Participants can acquire is copper from the LME and Comex warehouses and that once that copper has been taken off market, the “transparency” the Trust promotes will merely inform prospective investors on a daily basis just how successful the Trust has been in cornering the market. Thus, every day investors will be able to compare how much copper has been removed from the LME and Comex warehouses with how much copper has been taken off market by the Trust. Such information is critical for those looking to see how much copper needs to be removed on any given day in order to artificially inflate prices and thus the price of the Trust’s shares.

The Exchange also touts the Trust’s supposedly transparent “rules-based” process for “selecting copper lots” for various activities, such as satisfying redemption orders and calculating and paying expenses. However, what the Trust does not disclose is that absent an intent to profit by driving up copper prices artificially, the Trust’s offering makes no sense economically. Thus, because of tight supplies, which the Trust will make even tighter, the Trust will either create or further enhance a backwardation in the copper futures market. A backwardation occurs when near term prices are higher than prices over the medium and long term. When a backwardation occurs, anyone who wants to invest in copper would generally be better off purchasing a cheaper long-dated futures position, waiting for the futures position to mature, and then either rolling it over at a profit or cash-settling it. By purchasing a physical copper backed ETF, however, not only is the investor purchasing copper for immediate delivery at a premium, but the investor must bear the cost of storage – a cost that the purchaser of a long-dated futures position does not have to bear. In order to ensure that the ETF shares become profitable, the investor must hope that the amount of copper acquired is sufficient to artificially inflate the price just enough to cover the cost of storage every month. And as more and more copper gets acquired every month, the cost of storage goes up as well, as does the need to continually acquire more copper to move the price artificially upward.

These are risks that a purchaser of a long-date futures position would not have to face. And it begs the question: if the Sponsor is so eager to give “retail investors access to the copper market” as the Exchange represents, then why isn’t the Sponsor offering an ETF backed by copper futures? Instead, the entire premise of the investment here is based on removing from a very small market -- the market for copper available for immediate delivery, which is copper in the LME and Comex warehouses -- as much copper as needed to move the price upward, and to continue to do so until the monthly storage costs are met and the investment makes a profit, and to keep doing so, until investors lose interest, at which point the Trust will have no choice but to redeem its copper as quickly as possible, the effect of which will be force prices downward which, as is true whenever any commodity squeeze comes to an end, will create huge losses not just among investors but in industry as well.

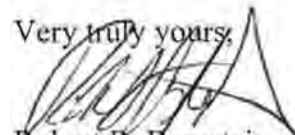
IV. Other Physical Metal ETFs

In our opening comment letter, we pointed out that copper is not like gold, silver, platinum and palladium, because unlike copper, which is a base metal, these are not just precious metals, but these are the only precious metals trade-able worldwide as currencies. In response,

the Exchange notes that platinum and palladium are used for “industrial purposes” and that “ETVs that include these metals as a significant component have been listed on the Exchange since 2009” with no empirical evidence suggesting these vehicles have “disrupted the markets for physical platinum and palladium or caused an increase in prices.” In fact, platinum and palladium are used for both industrial and investment purposes and, unlike copper, there is enough of a supply of platinum and palladium available in storage and being produced that the introduction of ETFs backed by these metals did not cause the kind of disruption to the market that a copper-backed ETF would cause. Thus, recent years' palladium surplus condition has reportedly been caused by the Russian government selling off government stockpiles built up during the Soviet era at a pace of about 1.6 to 2 million ounces a year. The amount and status of this stockpile is kept as a state secret. Platinum is not nearly as plentiful, but there is reportedly about a year's supply in reserves above ground. Thus, unlike copper, which is in relatively short supply with only about a week or two of world supply available on the LME, supplies of platinum and palladium are sufficiently plentiful – and priced very high in any event -- so that an ETF containing these metals did not have, and was not expected to have, much of an impact on industrial supply.

For these reasons, we continue to believe that the listing and trading of the Trust's Shares would be inconsistent with the requirements of the 1934 Securities Exchange Act.

Very truly yours,



Robert B. Bernstein

Exhibit A



Refined Copper Inventories in the Global Market

DATA & CHARTS FOR

RK Capital Management LLP

Bloomsbury Minerals Economics Ltd.,
5 Warren Mews,
London W1T 6AP,
England

Telephone: + 44 (0) 20 7529 8915

www.bloomsburyminerals.com

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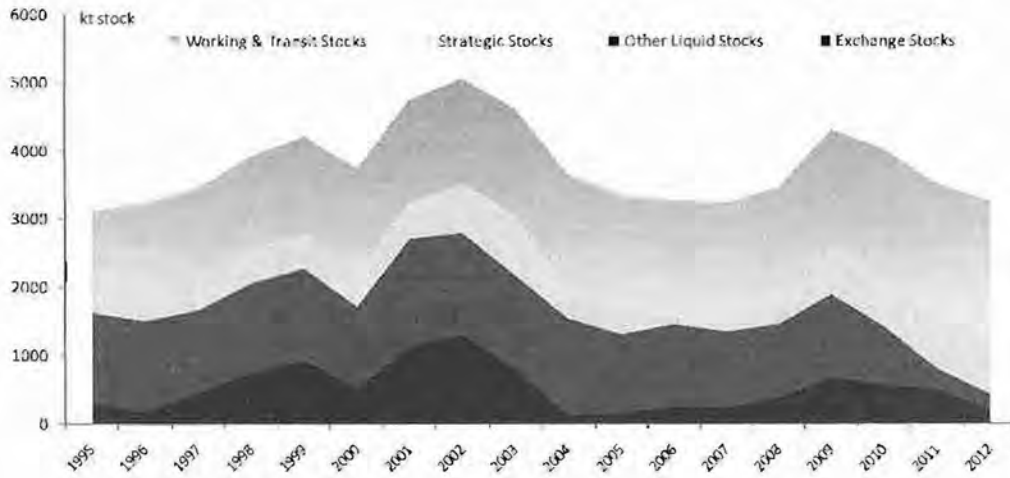
TABLE 1	Summary Data Table										Various Indicators		
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		
Industrial Production Index	100.6	103.7	108.9	113.0	118.8	125.7	126.1	115.9	126.5	132.7	137.8		
% Ch Y-O-Y	1.4%	3.1%	5.0%	3.8%	5.2%	5.7%	0.4%	-8.1%	9.2%	4.9%	3.9%		
Mine Output (kt)	13603	13707	14585	14952	15061	15465	15635	16057	16129	16323	17157		
% Ch Y-O-Y	-0.3%	0.8%	6.4%	2.5%	0.7%	2.7%	1.1%	2.7%	0.4%	1.2%	5.1%		
Smelter Output (kt)	12244	12343	12679	13447	13904	14144	14555	14481	14938	15177	15795		
% Ch Y-O-Y	-2.1%	0.8%	2.7%	6.1%	3.4%	1.7%	2.9%	-0.5%	3.2%	1.6%	-4.1%		
Refined Output (kt)	15323	15295	15890	16639	17389	18032	18383	18428	19174	19732	20395		
% Ch Y-O-Y	-1.7%	-0.2%	3.9%	4.7%	4.5%	3.7%	1.9%	0.2%	4.1%	2.9%	3.4%		
Refined Use (kt)	15027	15736	16860	16938	17469	18061	18156	17575	19475	20238	20775		
% Ch Y-O-Y	3.1%	4.7%	7.1%	0.5%	3.1%	3.4%	0.5%	-3.2%	10.8%	3.9%	2.7%		
Refined Balance (kt)	296	-440	-969	-299	-80	-30	227	853	-300	-506	-260		
Exchange Stocks (kt)	1294	808	124	156	253	239	390	686	575	503	197		
% Ch Y-O-Y	13.8%	-37.5%	-84.6%	25.8%	61.8%	-5.7%	63.7%	75.8%	-16.3%	-12.4%	-60.8%		
Total Stocks (kt)	5066	4625	3656	3357	3278	3248	3475	4327	4027	3522	3262		
% Ch Y-O-Y	6.2%	-8.7%	-21.0%	-8.2%	-2.4%	-0.9%	7.0%	24.5%	-6.9%	-12.6%	-7.4%		
LME Cash (Current \$/t)	1560	1779	2865	3678	6721	7117	6939	5165	7538	9320	9622		
% Ch Y-O-Y	-1.2%	14.1%	61.1%	28.4%	82.7%	5.9%	-2.5%	-25.6%	46.0%	23.7%	3.2%		
LME Cash (2010 \$/t)	1872	2106	3347	4211	7522	7783	7323	5337	7538	9005	8983		
% Ch Y-O-Y	-3.7%	12.5%	58.9%	25.8%	78.6%	3.5%	-5.9%	-27.1%	41.2%	19.5%	-0.3%		

TABLE 2	Refined Copper Balance and Stocks										'000 tonnes Cu
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
REFINED COPPER BALANCE											
Production	15323	15295	15890	16639	17389	18032	18383	18428	19174	19732	20515
Consumption	15077	15736	16860	16938	17469	18061	18156	17575	19475	20238	20775
Balance	296	-440	-969	-299	-80	-30	227	853	-300	-506	-260
REFINED COPPER STOCKS											
Normal Country Stocks	1120	1147	1183	1208	1237	1262	1283	1289	1373	1384	1407
At producers	416	413	431	457	472	488	406	406	511	523	530
At consumers	428	455	483	477	484	495	438	487	559	540	558
In domestic transit	277	277	268	279	280	279	280	305	323	312	309
Other Country Stocks	2733	2604	1357	1128	865	944	990	1834	1711	1462	1198
LME	856	433	49	92	191	199	341	502	378	358	132
Other Exchanges	437	376	75	64	62	39	50	184	197	145	65
Strategic Stocks	734	884	459	353	90	150	245	675	725	820	805
Abnormal Country Stocks	705	911	773	619	522	556	355	472	411	339	106
Non Country Stocks	1206	868	1111	1015	1169	1036	1195	1199	937	670	653
International Transit	411	412	468	472	486	479	480	455	499	503	518
Misc. Bonded Stocks	795	457	642	543	683	556	715	743	438	166	132
Total	5059	4619	3650	3351	3271	3241	3468	4321	4021	3515	3256

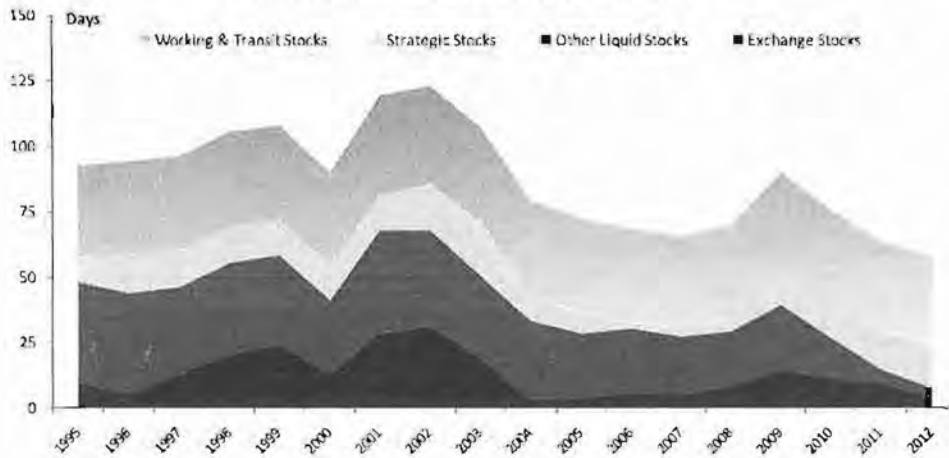
TABLE 3	Refined Copper Balance Detail										'000 tonnes Cu / Days Consumption
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
PRODUCTION-CONSUMPTION BALANCE (kt)											
Production	15323	15295	15890	16639	17389	18032	18383	18428	19174	19732	20515
Consumption	15077	15736	16860	16938	17469	18061	18156	17575	19475	20238	20775
Prod-Cons Balance	296	-440	-969	-299	-80	-30	227	853	-300	-506	-260
EFFECTIVE MARKET BALANCE (kt)											
Added to Working Stocks	18	77	92	20	43	18	22	-19	127	15	37
Added to Strategic Stocks	200	150	423	106	-263	60	95	430	50	95	75
Effective Market Balance	78	-617	-637	-222	140	-107	110	441	-477	-616	-372
TOTAL STOCKS AND LIQUID STOCKS (kt)											
Total Stocks	5059	4619	3650	3351	3271	3241	3468	4321	4021	3515	3256
Liquid Stocks	2794	2177	1540	1318	1458	1350	1461	1902	1425	808	435
LME	856	433	49	92	191	199	341	502	378	358	132
Other Exchanges	437	376	75	64	62	39	50	184	197	145	65
Abnormal Country Stocks	705	911	773	619	522	556	355	472	411	339	106
Exchange Traded Funds	0	0	0	0	0	0	0	0	1	1	1
Misc. Bonded Stocks	795	457	642	543	683	556	715	743	437	165	131
TOTAL STOCKS, LIQUID STOCKS AND WORKING, TRANSIT STOCK & OTHER NON LIQUID STOCKS (Days Consumption)											
Total Stocks	123	107	79	72	68	66	70	90	75	63	57
Liquid Stocks	68	50	33	28	30	27	29	39	27	15	8
LME	21	10	1	2	4	4	7	10	7	6	2
Other Exchanges	11	9	2	1	1	1	1	4	4	3	1
Abnormal Country Stocks	17	21	17	13	11	11	7	10	8	3	2
Exchange Traded Funds	0	0	0	0	0	0	0	0	0	0	0
Misc. Bonded Stocks	19	11	14	12	14	11	14	15	8	3	7
Working & Transit Stocks	36	34	36	35	35	35	37	33	34	33	33
Producer Stocks	10	9	9	9	10	10	10	9	9	9	9
Consumer Stocks	10	10	10	10	10	10	10	9	10	10	10
Domestic Transit	6	6	6	6	6	6	6	6	6	5	5
International Transit	10	9	10	10	10	10	10	9	9	9	9
Other Non Liquid Stocks	20	23	10	9	3	3	4	18	15	16	17
Strategic Reserves	20	23	10	9	3	3	4	18	15	16	17

Notes: Increase in Total Stocks equals Production-Consumption Balance, increase in Liquid Stocks equals Effective Market Balance
Abnormal Country Stocks are mainly non-bonded merchant stocks and excess stocks at producers and consumers

Refined Copper Stocks by Type in Tonnes



Refined Copper Stocks in Days Consumption



Liquid Stocks on and Off Exchange in Days Consumption

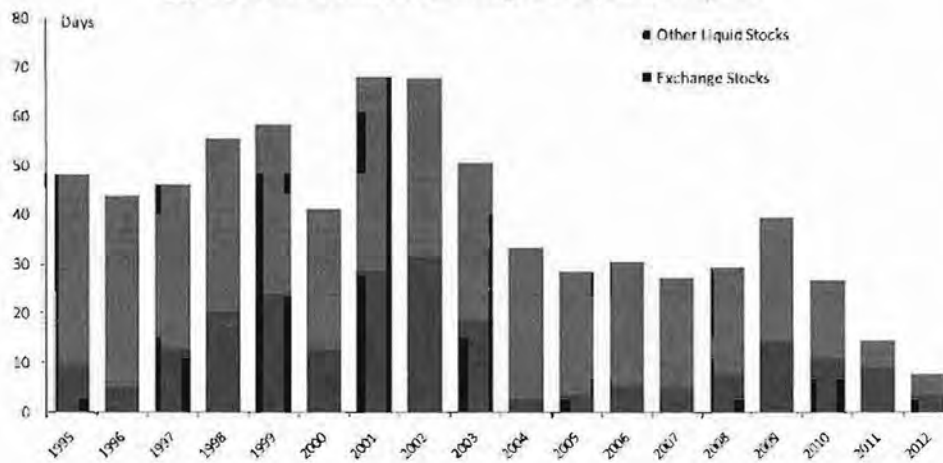


Exhibit B

Robert Bernstein

From: Robert Bernstein
Sent: Monday, July 09, 2012 11:38 PM
To: [REDACTED]
Subject: FW: Copper stocks

From: David Lilley [mailto:David.Lilley@rkcapital.co.uk]
Sent: Monday, September 12, 2011 4:35 AM
To: Robert Bernstein
Cc: Barry Feldman
Subject: Copper stocks

Hi,

This is a very good and accurate article from Andy Home of Reuters. Interestingly enough it sources from BME who are the people I was going to get to prepare an independent study for us. I will see what I can get from them but their numbers in this article are to my opinion pretty accurate and highlight well the misinformation in trying to say that these stocks are surplus and available for industry or investors in any meaningful way.

COLUMN Those 'hidden' copper stocks found (again):

Andy Home

--Andy Home is a Reuters columnist. The opinions expressed are his own--

LONDON, Sept 9 (Reuters) - Do you believe that the copper price is an illusion? An artifice created by investment banks to sucker the gullible into buying their structured notes, their indexes and exchange-traded funds?

Do you believe that the narrative of copper market tightness is a fairy tale, propagated by those same banks' research departments?

Do you believe that even while the banks tell the world there is not enough metal to meet demand, they are quietly squirreling away ever greater amounts of the stuff in "hidden" stocks?

If you do, you're not alone.

A small but influential group of market commentators has long argued that the copper bull narrative is an illusion, maintained by the systematic withholding of stocks from the marketplace.

And now, they have found the proof! Even better, with delicious irony, it's one of those very same banks that has inadvertently lifted the lid on the scandal.

"THE SMOKING GUN"

The "smoking gun" comes in the unlikely form of an amended regulatory filing by J.P. Morgan for its proposed physical copper exchange-traded fund.

Here's the key part, included within the "Risk Factors" section of the filing, that has excited copper conspiracy theorists:

"In 2010, there were approximately 3.1 million metric tons of copper stocks in the overall global copper market, of which approximately 568,000 metric tons of copper stocks were registered within systems or exchanges such as the LME, COMEX and the SHFE and approximately 2.53 million metric tons of copper stocks existed in the physical market."

Two and a half million tonnes of a metal that is supposed to be in short supply!

And JP Morgan, LME ring-dealing member and owner of the Henry Bath warehousing company. Talk about being condemned "out of their own mouths"!

You may wish to pause for a moment to relish the prospect of shame-faced bankers being led to the stocks to face public retribution for lying to the world about copper stocks.

OK. Finished? Now I'll tell you why it's not going to happen.

HIDDEN?

Something of a clue comes when the statement quoted above is put into context.

It is not JP Morgan's assessment of the market. Rather, the figures are taken from "the latest data available as provided by CRU Analysis".

UK-based CRU is not so much market whistle-blower as heavy-weight commodities research house.

And along with other forensic copper market statisticians such as Brook Hunt and Bloomsbury Minerals Economics (BME), it has the unenviable task of trying to calculate what is happening "out there" in the dark recesses of the physical market.

Exchange stocks we can all count. Other sorts of stocks we can't. They have to be estimated and that involves a lot of poring over trade data to identify flows of metal around the world.

Such stocks are "hidden" in so far as they are statistically opaque. It is possible that they include stocks which have been deliberately "hidden" by market players for their own purposes, not always nefarious.

The question is how to separate out the "hidden" from the "hidden", as it were.

METAL, METAL EVERYWHERE...

BME provides a comprehensive estimate of stocks at every stage of the copper supply chain in its monthly "Copper Briefing Service".

And, as it happens, its estimate for total refined copper stocks at the end of last year is higher than CRU's at 4.027 million tonnes, including exchange inventory.

Usefully, though, they provide a detailed breakdown of their assessment, which runs pretty much as follows.

Refined metal stocks held by producers and consumers

totalled 1.079 million tonnes at the end of 2010. Such holdings are categorised by BME under the heading "Normal Country Stocks".

This metal forms part of the "normal" physical copper supply chain. All producers hold inventory. So do all consumers. If they didn't, the supply chain would not function.

Nor would it function were metal not always moving between producer and consumer.

BME estimates that 332,000 tonnes were in domestic transit and another 499,000 tonnes in international transit at the end of last year.

Add that to the "normal" industry stock figure and you already have close to 2 million tonnes that is either waiting to be shipped by producers, already en route to consumers or waiting to be used by fabricators.

Only if the supply-chain collapses will such metal ever see the statistical light of day in the form of exchange inventory. The Great Contraction of late 2008 was the last time it happened to any significant extent.

And only if the supply chain fails through extreme physical tightness will you see the 725,000 tonnes that BME estimates are held as "Strategic Stocks".

Think China's State Reserves Bureau and South Korea's

Public Procurement Service, both of which hold what might

be termed "emergency stocks" for release to local manufacturers in times of extreme supply stress.

...BUT SO LITTLE FOR DELIVERY

Strip out exchange stocks from the remaining total stocks figure and you're left with 817,000 tonnes of "hidden" inventory.

BME categorises this under two headings: "Abnormal Country Stocks" (379,000 tonnes) and "Miscellaneous Bonded Stocks and ETFs" (438,000 tonnes).

"Abnormal" stocks captures shifts in the industry stocking cycle. Consumers, for example, will collectively lift working inventory levels during times of low prices and good availability.

Conversely, such stocks will fall during periods of high price and low availability. It's worth noting that BME forecasts a dramatic slide in "Abnormal Country Stocks" to just 143,000 tonnes over the course of this year and a move into negative territory next year.

It is the tonnage in bonded warehouse that could best be described as "hidden" in so far as the owners, ranging from investment banks to merchants to Chinese construction companies using it as collateral, have chosen not to place it on an exchange.

Some of them will have very good reasons not to. What, for example, is the point of being in the merchanting game if you don't hold consignment stocks?

Such stock does, however, have the potential to destabilise market balance calculations and price.

Think, for example, of the copper in bonded warehouse in Shanghai.

Such metal should be merely pausing between clearing Chinese customs and being sold on to a mainland buyer, at which stage VAT is payable.

But if the arbitrage is closed or the Chinese authorities tighten the rules governing the finance trade, such stock can turn around and head towards the nearest LME warehouse location in South Korea.

This is what happened in the second quarter, when reexports mushroomed, causing the downtrend in LME stocks to reverse and halting the bull price run dead in its tracks.

Shanghai bonded stocks are statistically "hidden" but they are now a "known unknown" in the market, critical to deciphering the Dragon's fluctuating appetite for copper. More on which on Monday when we get the first snapshot of

China's August import figures.

But as for all the other copper that is "hidden" out there in the statistical murk. You can't see it. And you don't want to see it. If you do, it means something has gone very, very wrong with the industrial supply chain.

Exhibit C

Copper market expects squeeze, big holding appears

By Eric Onstad

LONDON, July 2 (Reuters) - Traders are bracing for a replay of the April squeeze that made copper expensive to obtain quickly, saying major trader Glencore controls almost half the inventories of the commodity held in London Metal Exchange registered warehouses worldwide.

A potential rebound of demand in China, the world's top copper consumer, combined with strongly-held LME stocks, could constrict the market in coming months in an even more severe version of what happened this spring.

A squeeze gripped the market in April, as one entity took control of up to 90 percent of cash contracts and inventories on the LME, facing off against Chinese market participants who were caught with short positions.

Glencore, which traders also named as holding the huge position in April, declined to comment.

The tightness faded in May and the dominant position evaporated as Chinese copper producers shifted metal into LME

Asian warehouses and copper prices were swept lower along with other risk assets on renewed fears about the euro zone.

Demand in China was disappointing in the second quarter, usually a peak period for buying, as an economic slowdown hit, but analysts expect a moderate revival in the second half.

"It's not a market that's particularly well supplied with metal at a time when demand globally has been pretty weak in the last six months," said analyst Wiktor Bielski at VTB Capital Markets in London.

"If you ignore the short-term noise, any sort of recovery in the second half would suggest that you should get a decent second half rally in copper."

LARGE POSITION REAPPEARS

A combination of lacklustre demand and the European debt crisis has weighed on benchmark three-month copper futures prices, but nearby spreads are telling a different story.

While three-month copper shed 9 percent in the second quarter, over the past week the nearby market has moved into backwardation, in which cash prices are higher than three month futures, indicating tightness.

On Monday, the premium of cash copper over the three month price was \$8 a tonne, compared to a peak of \$155 per tonne in April at the height of the squeeze, the highest in 3-1/2 years.

The backwardation has coincided with the reappearance of a large position in copper after having disappeared for many weeks.

LME data showed that 40-50 percent of inventory warrants are controlled by one party. Warrants are ownership documents for LME stocks.

The LME begins reporting positions when one party moves above 30 percent and when the combined inventory and cash position rises above 50 percent, it is regarded as dominant.

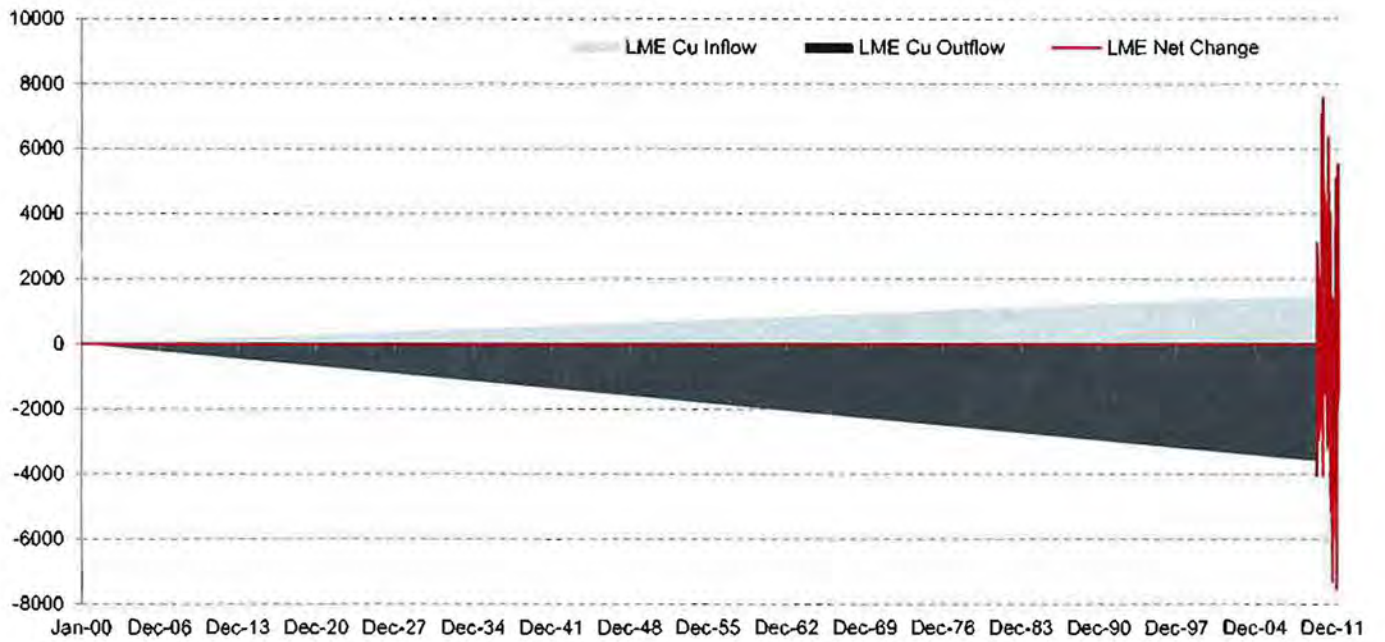
At that point, the exchange applies a mechanism to avoid disorderly markets and limit the exposure of short position holders.

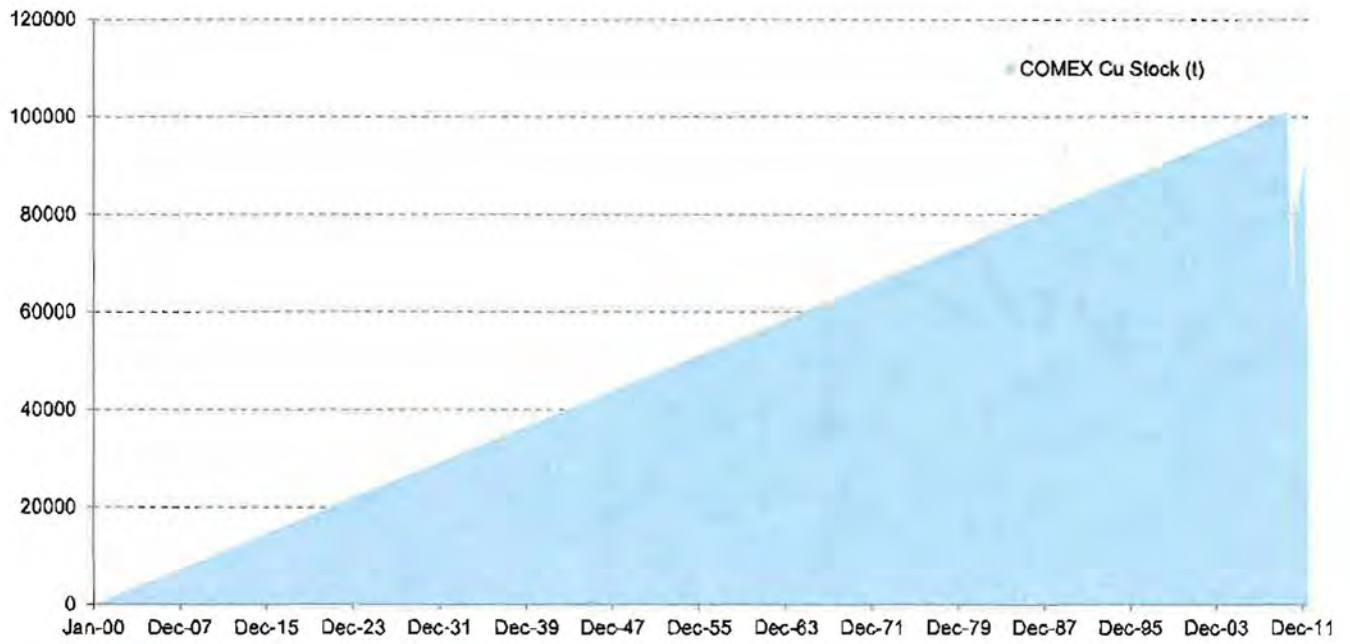
Under these LME "lending guidance" rules a dominant position holder must supply metal at little or no premium to parties with expiring positions.

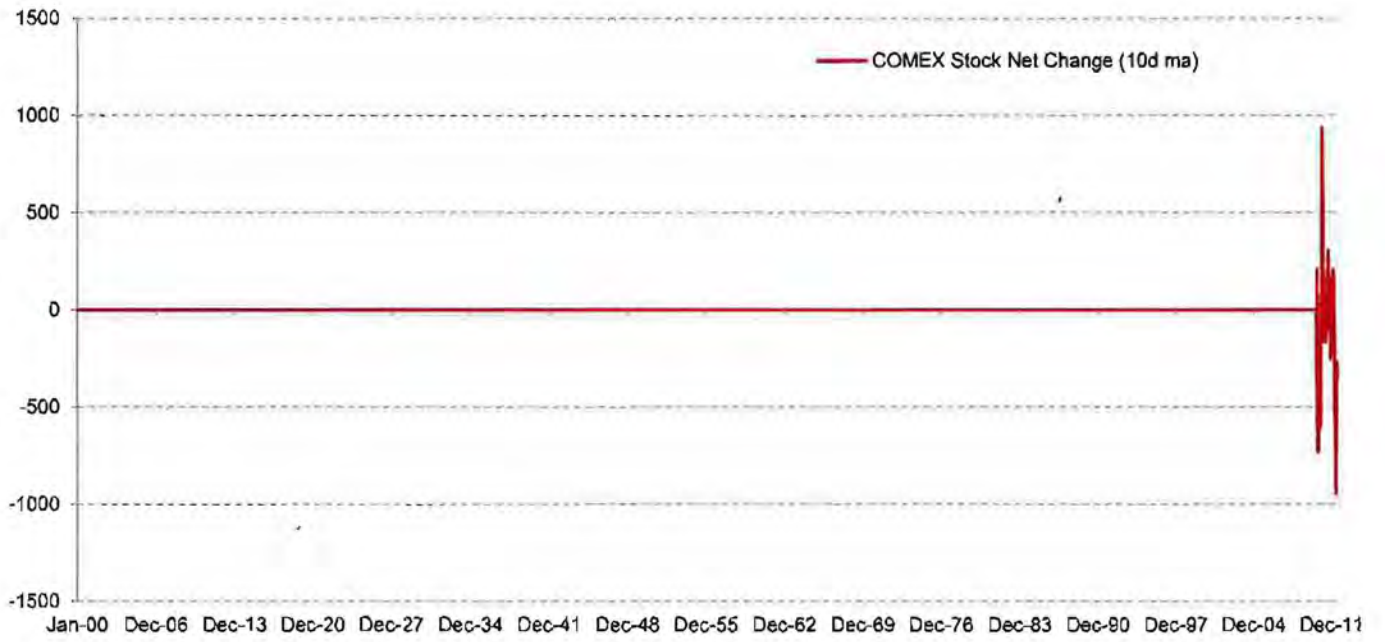
The LME does not identify holders of large positions, but traders said Glencore had built up the position in copper.

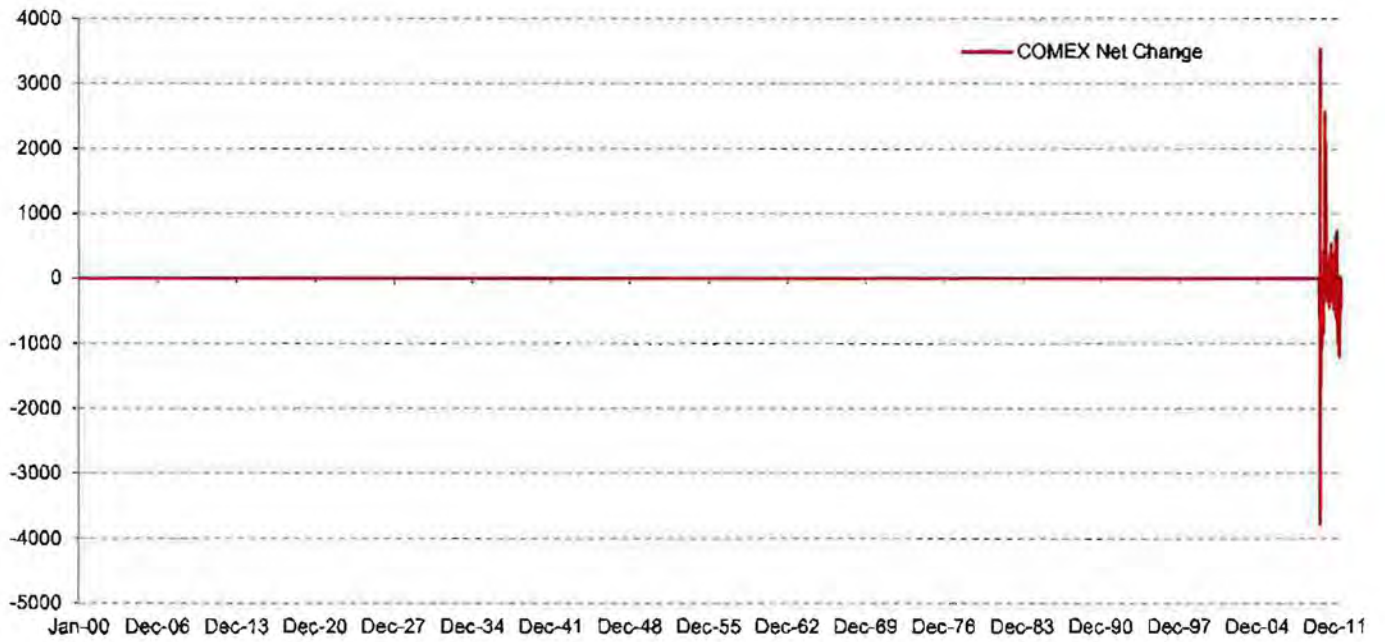
Large holdings of LME stocks and futures can occur unintentionally and are not unusual for big companies with many divisions and with clients that participate in metals markets.

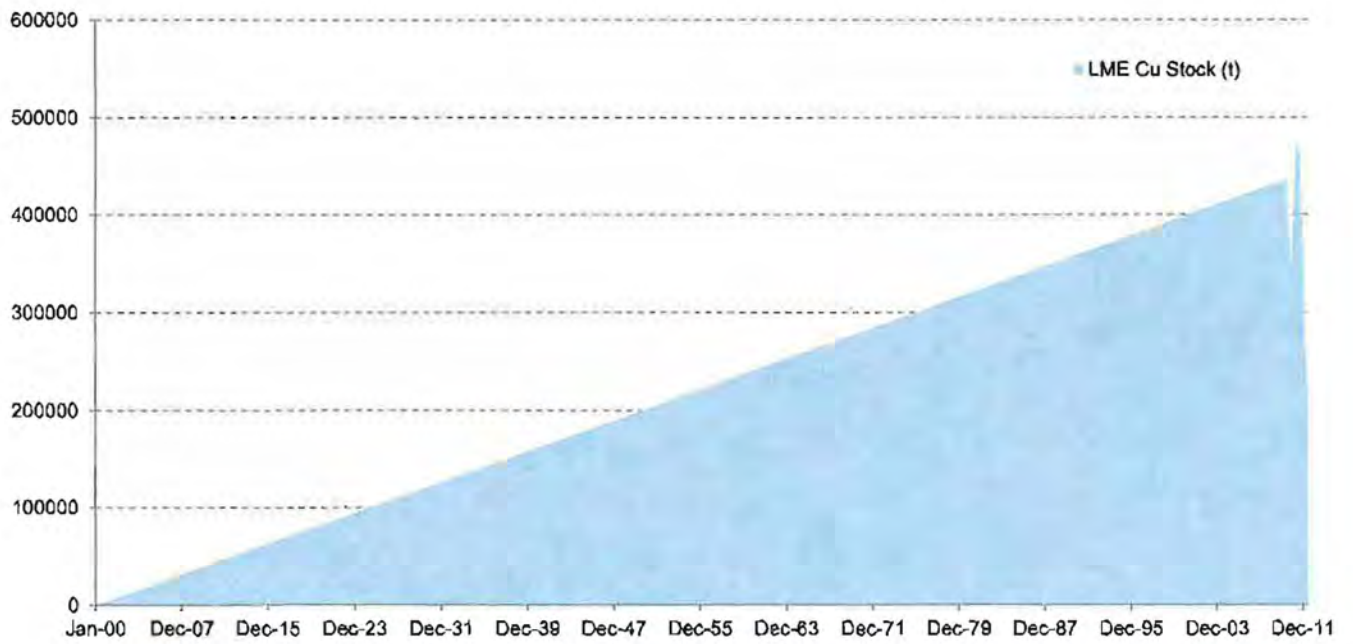
Exhibit D

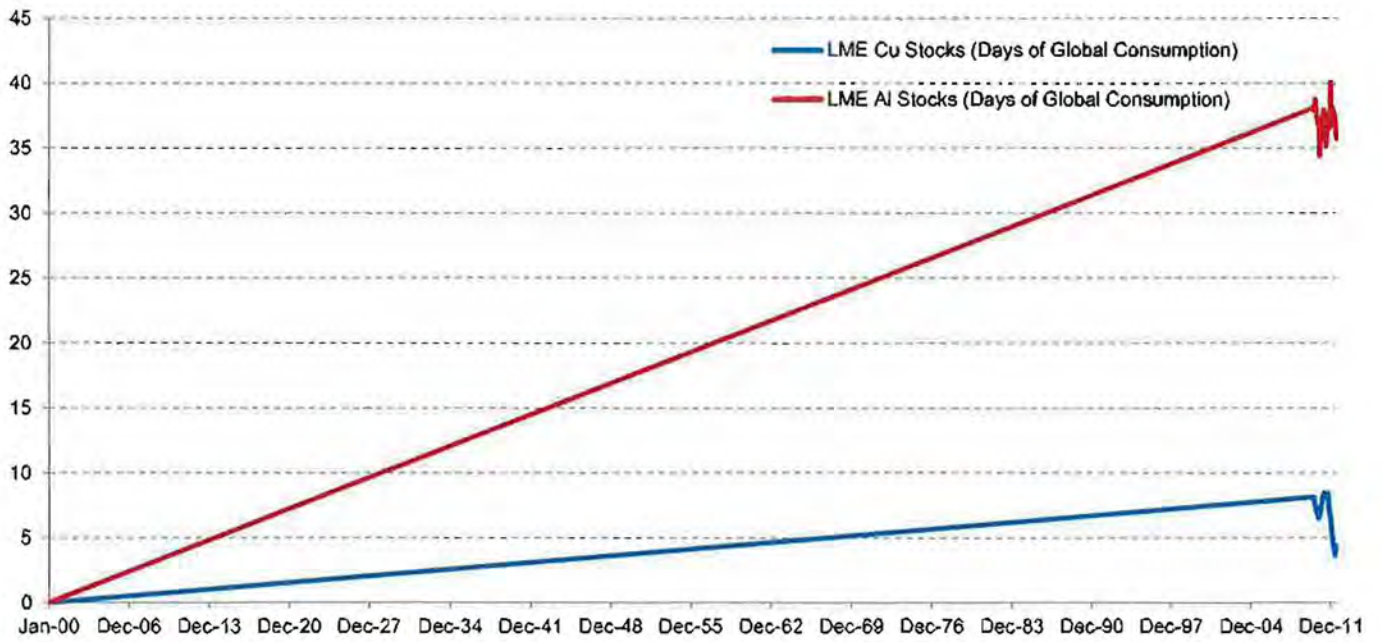


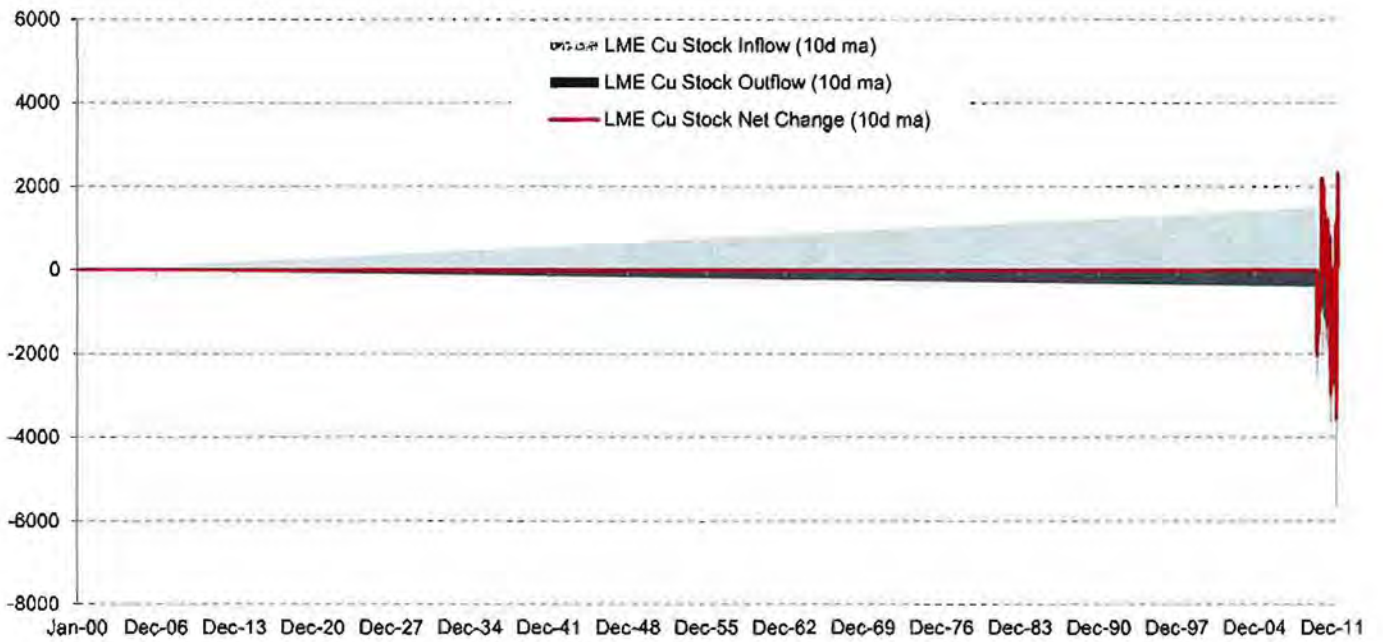












7/9/2010

	NLSCA Index	NLCA Index	NLKCA Index		LME Chg	Moving Av
	LME Cu Stock (t)	LME Cu Inflow	LME Cu Outflow	LME Cu Outflow	LME Net CI	10
#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
7/6/2012	254450	2000	275	-275	1725	1502.5
7/5/2012	252725	400	1200	-1200	-800	1542.5
7/4/2012	253525	175	1825	-1825	-1650	1805
7/3/2012	255175	375	1500	-1500	-1125	1795
7/2/2012	256300	450	1300	-1300	-850	2110
6/29/2012	257150	2650	1600	-1600	1050	2182.5
6/28/2012	256100	2850	1625	-1625	1225	2440
6/27/2012	254875	3325	1700	-1700	1625	2482.5
6/26/2012	253250	1025	975	-975	50	2667.5
6/25/2012	253200	1775	1550	-1550	225	3170
6/22/2012	252975	2400	1575	-1575	825	3692.5
6/21/2012	252150	3025	1225	-1225	1800	3585
6/20/2012	250350	75	1400	-1400	-1325	3507.5
6/19/2012	251675	3525	975	-975	2550	3675
6/18/2012	249125	1175	1500	-1500	-325	3550
6/15/2012	249450	5225	850	-850	4375	3660
6/14/2012	245075	3275	1625	-1625	1650	3365
6/13/2012	243425	5175	1300	-1300	3875	3560
6/12/2012	239550	6050	1700	-1700	4350	3172.5
6/11/2012	235200	7000	1475	-1475	5525	2945
6/8/2012	229675	1325	950	-950	375	2520
6/7/2012	229300	2250	4150	-4150	-1900	2537.5
6/6/2012	231200	1750	1425	-1425	325	2427.5
6/5/2012	230875	2275	2075	-2075	0	2605
6/4/2012	230875	2275	2075	-2075	0	2807.5
6/1/2012	230875	2275	2075	-2075	200	3220
5/31/2012	230675	5225	1650	-1650	3575	3552.5
5/30/2012	227100	1300	0	0	1300	3622.5
5/29/2012	225800	3775	1025	-1025	2750	3772.5
5/28/2012	223050	2750	3200	-3200	-450	3777.5
5/25/2012	223500	1500	2075	-2075	-575	3875
5/24/2012	224075	1150	2775	-2775	-1625	4312.5
5/23/2012	225700	3525	1800	-1800	1725	4542.5
5/22/2012	223975	4300	4700	-4700	-400	4775
5/21/2012	224375	6400	3200	-3200	3200	4685
5/18/2012	221175	5600	1875	-1875	3725	4267.5
5/17/2012	217450	5925	3825	-3825	2100	3930
5/16/2012	215350	2800	3800	-3800	-1000	3597.5
5/15/2012	216350	3825	5775	-5775	-1950	3502.5
5/14/2012	218300	3725	6700	-6700	-2975	3320
5/11/2012	221275	5875	4450	-4450	1425	3245
5/10/2012	219850	3450	4525	-4525	-1075	2782.5
5/9/2012	220925	5850	13375	-13375	-7525	2680
5/8/2012	228450	3400	5575	-5575	-2175	2337.5

5/7/2012	230625	2225	6800	-6800	0	2042.5
5/4/2012	230625	2225	6800	-6800	-4575	1887.5
5/3/2012	235200	2600	6350	-6350	-3750	1797.5
5/2/2012	238950	1850	4450	-4450	-2600	2045
5/1/2012	241550	2000	8800	-8800	-6800	2207.5
4/30/2012	248350	2975	6450	-6450	-3475	2205
4/27/2012	251825	1250	4775	-4775	-3525	1957.5
4/26/2012	255350	2425	3475	-3475	-1050	1882.5
4/25/2012	256400	2425	2900	-2900	-475	1800
4/24/2012	256875	450	2425	-2425	-1975	1820
4/23/2012	258850	675	2975	-2975	-2300	2295
4/20/2012	261150	1325	2875	-2875	-1550	2877.5
4/19/2012	262700	5075	3525	-3525	1550	3395
4/18/2012	261150	3475	3400	-3400	75	3537.5
4/17/2012	261075	1975	2600	-2600	-625	3457.5
4/16/2012	261700	500	3200	-3200	-2700	3945
4/13/2012	264400	500	2175	-2175	-1675	4165
4/12/2012	266075	1600	2675	-2675	-1075	4315
4/11/2012	267150	2625	3875	-3875	-1250	4340
4/10/2012	268400	5200	1575	-1575	3625	4147.5
4/9/2012	264775	6500	1400	-1400	0	4130
4/6/2012	264775	6500	1400	-1400	0	3592.5
4/5/2012	264775	6500	1400	-1400	5100	3120
4/4/2012	259675	2675	3650	-3650	-975	2495
4/3/2012	260650	6850	3750	-3750	3100	2287.5
4/2/2012	257550	2700	1425	-1425	1275	1682.5
3/30/2012	256275	2000	1350	-1350	650	1500
3/29/2012	255625	1850	2375	-2375	-525	1302.5
3/28/2012	256150	700	2125	-2125	-1425	1155
3/27/2012	257575	5025	1450	-1450	3575	1175
3/26/2012	254000	1125	2300	-2300	-1175	802.5
3/23/2012	255175	1775	2050	-2050	-275	775
3/22/2012	255450	250	3125	-3125	-2875	647.5
3/21/2012	258325	600	3100	-3100	-2500	867.5
3/20/2012	260825	800	2550	-2550	-1750	807.5
3/19/2012	262575	875	2125	-2125	-1250	830
3/16/2012	263825	25	3950	-3950	-3925	742.5
3/15/2012	267750	375	3250	-3250	-2875	740
3/14/2012	270625	900	3275	-3275	-2375	702.5
3/13/2012	273000	1300	2225	-2225	-925	627.5
3/12/2012	273925	850	2950	-2950	-2100	700
3/9/2012	276025	500	4500	-4500	-4000	615
3/8/2012	280025	2450	3325	-3325	-875	567.5
3/7/2012	280900	0	2675	-2675	-2675	340
3/6/2012	283575	1025	3275	-3275	-2250	415
3/5/2012	285825	0	3175	-3175	-3175	527.5
3/2/2012	289000	0	3250	-3250	-3250	782.5
3/1/2012	292250	0	4175	-4175	-4175	782.5
2/29/2012	296425	150	2575	-2575	-2425	832.5

2/28/2012	298850	2025	3650	-3650	-1625	982.5
2/27/2012	300475	0	3025	-3025	-3025	1030
2/24/2012	303500	25	1400	-1400	-1375	1280
2/23/2012	304875	175	1025	-1025	-850	1332.5
2/22/2012	305725	750	450	-450	300	1315
2/21/2012	305425	2150	2600	-2600	-450	1240
2/20/2012	305875	2550	3050	-3050	-500	1045
2/17/2012	306375	0	4750	-4750	-4750	790
2/16/2012	311125	500	2425	-2425	-1925	817.5
2/15/2012	313050	1650	2400	-2400	-750	782.5
2/14/2012	313800	2500	2200	-2200	300	617.5
2/13/2012	313500	2500	1750	-1750	750	380
2/10/2012	312750	550	1400	-1400	-850	130
2/9/2012	313600	0	2750	-2750	-2750	175
2/8/2012	316350	0	3650	-3650	-3650	175
2/7/2012	320000	200	3350	-3350	-3150	210
2/6/2012	323150	0	2950	-2950	-2950	197.5
2/3/2012	326100	275	2850	-2850	-2575	197.5
2/2/2012	328675	150	775	-775	-625	170
2/1/2012	329300	0	1525	-1525	-1525	155
1/31/2012	330825	125	2425	-2425	-2300	175
1/30/2012	333125	0	2300	-2300	-2300	237.5
1/27/2012	335425	1000	3450	-3450	-2450	237.5
1/26/2012	337875	0	1875	-1875	-1875	182.5
1/25/2012	339750	350	2850	-2850	-2500	182.5
1/24/2012	342250	75	3600	-3600	-3525	197.5
1/23/2012	345775	0	2975	-2975	-2975	190
1/20/2012	348750	0	2450	-2450	-2450	250
1/19/2012	351200	0	1300	-1300	-1300	362.5
1/18/2012	352500	200	1125	-1125	-925	412.5
1/17/2012	353425	750	1900	-1900	-1150	392.5
1/16/2012	354575	0	2250	-2250	-2250	480
1/13/2012	356825	450	1875	-1875	-1425	622.5
1/12/2012	358250	0	6000	-6000	-6000	720
1/11/2012	364250	500	1625	-1625	-1125	767.5
1/10/2012	365375	0	1525	-1525	-1525	742.5
1/9/2012	366900	600	1825	-1825	-1225	930
1/6/2012	368125	1125	1400	-1400	-275	1057.5
1/5/2012	368400	500	1250	-1250	-750	1132.5
1/4/2012	369150	0	2425	-2425	-2425	1175
1/3/2012	371575	1625	950	-950	675	1252.5
1/2/2012	370900	1425	925	-925	0	1125
12/30/2011	370900	1425	925	-925	500	1212.5
12/29/2011	370400	475	1700	-1700	-1225	1262.5
12/28/2011	371625	250	925	-925	-675	1390
12/27/2011	372300	1875	1525	-1525	0	1415
12/26/2011	372300	1875	1525	-1525	0	1230
12/23/2011	372300	1875	1525	-1525	350	1070
12/22/2011	371950	925	275	-275	650	957.5

12/21/2011	371300	775	325	-325	450	915
12/20/2011	370850	350	3450	-3450	-3100	952.5
12/19/2011	373950	2300	9600	-9600	-7300	1067.5
12/16/2011	381250	1925	2750	-2750	-825	990
12/15/2011	382075	1750	1825	-1825	-75	1020
12/14/2011	382150	500	1375	-1375	-875	930
12/13/2011	383025	25	2575	-2575	-2550	925
12/12/2011	385575	275	775	-775	-500	932.5
12/9/2011	386075	750	2075	-2075	-1325	1025
12/8/2011	387400	500	2550	-2550	-2050	1085
12/7/2011	389450	1150	1800	-1800	-650	1065
12/6/2011	390100	1500	900	-900	600	1130
12/5/2011	389500	1525	175	-175	1350	1202.5
12/2/2011	388150	2225	775	-775	1450	1152.5
12/1/2011	386700	850	775	-775	75	952.5
11/30/2011	386625	450	4350	-4350	-3900	930
11/29/2011	390525	100	2350	-2350	-2250	990
11/28/2011	392775	1200	3150	-3150	-1950	980
11/25/2011	394725	1350	2600	-2600	-1250	917.5
11/24/2011	395975	300	1850	-1850	-1550	782.5
11/23/2011	397525	1800	1350	-1350	450	822.5
11/22/2011	397075	2225	1125	-1125	1100	707.5
11/21/2011	395975	1025	3300	-3300	-2275	485
11/18/2011	398250	225	1600	-1600	-1375	427.5
11/17/2011	399625	625	1925	-1925	-1300	405
11/16/2011	400925	1050	3425	-3425	-2375	472.5
11/15/2011	403300	0	2100	-2100	-2100	367.5
11/14/2011	405400	575	2875	-2875	-2300	415
11/11/2011	407700	0	2325	-2325	-2325	600
11/10/2011	410025	700	2825	-2825	-2125	1022.5
11/9/2011	412150	650	825	-825	-175	952.5
11/8/2011	412325	0	3000	-3000	-3000	967.5
11/7/2011	415325	450	2975	-2975	-2525	1042.5
11/4/2011	417850	0	4275	-4275	-4275	997.5
11/3/2011	422125	1300	2450	-2450	-1150	1017.5
11/2/2011	423275	0	1475	-1475	-1475	947.5
11/1/2011	424750	475	5100	-5100	-4625	1385
10/31/2011	429375	2425	5425	-5425	-3000	1872.5
10/28/2011	432375	4225	6525	-6525	-2300	2157.5
10/27/2011	434675	0	2750	-2750	-2750	1735
10/26/2011	437425	800	2525	-2525	-1725	1735
10/25/2011	439150	750	5875	-5875	-5125	1755
10/24/2011	444275	0	3525	-3525	-3525	1722.5
10/21/2011	447800	200	3250	-3250	-3050	1722.5
10/20/2011	450850	600	1925	-1925	-1325	1820
10/19/2011	452175	4375	4125	-4125	250	1760
10/18/2011	451925	5350	5075	-5075	275	1482.5
10/17/2011	451650	5275	3825	-3825	1450	1005
10/14/2011	450200	0	2900	-2900	-2900	752.5

10/13/2011	453100	0	3900	-3900	-3900	1152.5
10/12/2011	457000	1000	2525	-2525	-1525	1707.5
10/11/2011	458525	425	4425	-4425	-4000	1805
10/10/2011	462525	0	4575	-4575	-4575	2245
10/7/2011	467100	1175	5800	-5800	-4625	2245
10/6/2011	471725	0	3200	-3200	-3200	2147.5
10/5/2011	474925	1600	1700	-1700	-100	2217.5
10/4/2011	475025	575	500	-500	75	2202.5
10/3/2011	474950	2750	1500	-1500	1250	2200
9/30/2011	473700	4000	1000	-1000	3000	2375
9/29/2011	470700	5550	1525	-1525	4025	2030
9/28/2011	466675	1975	2700	-2700	-725	1500
9/27/2011	467400	4825	1000	-1000	3825	1415
9/26/2011	463575	0	975	-975	-975	1097.5
9/23/2011	464550	200	1725	-1725	-1525	1097.5
9/22/2011	466075	700	1575	-1575	-875	1077.5
9/21/2011	466950	1450	1425	-1425	25	1030
9/20/2011	466925	550	2750	-2750	-2200	900
9/19/2011	469125	4500	1400	-1400	3100	860
9/16/2011	466025	550	675	-675	-125	435
9/15/2011	466150	250	875	-875	-625	555
9/14/2011	466775	1125	350	-350	775	740
9/13/2011	466000	1650	775	-775	875	805
9/12/2011	465125	0	100	-100	-100	837.5
9/9/2011	465225	0	50	-50	-50	1042.5
9/8/2011	465275	225	200	-200	25	1247.5
9/7/2011	465250	150	275	-275	-125	1250
9/6/2011	465375	150	375	-375	-225	1235
9/5/2011	465600	250	725	-725	-475	1220
9/2/2011	466075	1750	300	-300	1450	1517.5
9/1/2011	464625	2100	1300	-1300	800	1437.5
8/31/2011	463825	1775	2325	-2325	-550	1252.5
8/30/2011	464375	1975	2525	-2525	-550	1117.5
8/29/2011	464925	2050	425	-425	0	1437.5
8/26/2011	464925	2050	425	-425	1625	1232.5
8/25/2011	463300	250	725	-725	-475	1032.5
8/24/2011	463775	0	1250	-1250	-1250	1055
8/23/2011	465025	0	1275	-1275	-1275	1105
8/22/2011	466300	3225	400	-400	2825	1132.5
8/19/2011	463475	950	450	-450	500	877.5
8/18/2011	462975	250	1900	-1900	-1650	835
8/17/2011	464625	425	1075	-1075	-650	850
8/16/2011	465275	5175	500	-500	4675	945
8/15/2011	460600	0	1175	-1175	-1175	555
8/12/2011	461775	50	1425	-1425	-1375	665
8/11/2011	463150	475	1350	-1350	-875	662.5
8/10/2011	464025	500	1175	-1175	-675	690
8/9/2011	464700	275	875	-875	-600	897.5
8/8/2011	465300	675	500	-500	175	920

8/5/2011	465125	525	725	-725	-200	1007.5
8/4/2011	465325	400	925	-925	-525	1045
8/3/2011	465850	1375	1150	-1150	225	1755
8/2/2011	465625	1275	1675	-1675	-400	1710
8/1/2011	466025	1100	1625	-1625	-525	2205
7/29/2011	466550	25	1825	-1825	-1800	2262.5
7/28/2011	468350	750	2200	-2200	-1450	2340
7/27/2011	469800	2575	1875	-1875	700	2370
7/26/2011	469100	500	2600	-2600	-2100	2227.5
7/25/2011	471200	1550	2675	-2675	-1125	2305
7/22/2011	472325	900	2625	-2625	-1725	2195
7/21/2011	474050	7500	1150	-1150	6350	2140
7/20/2011	467700	925	625	-625	300	1552.5
7/19/2011	467400	6225	1775	-1775	4450	1472.5
7/18/2011	462950	1675	750	-750	925	885
7/15/2011	462025	800	800	-800	0	852.5
7/14/2011	462025	1050	1000	-1000	50	855
7/13/2011	461975	1150	800	-800	350	752.5
7/12/2011	461625	1275	1275	-1275	0	765
7/11/2011	461625	450	675	-675	-225	697.5
7/8/2011	461850	350	450	-450	-100	740
7/7/2011	461950	1625	950	-950	675	910
7/6/2011	461275	125	1350	-1350	-1225	855
7/5/2011	462500	350	575	-575	-225	1107.5
7/4/2011	462725	1350	2075	-2075	-725	1325
7/1/2011	463450	825	2625	-2625	-1800	1447.5
6/30/2011	465250	25	1800	-1800	-1775	1472.5
6/29/2011	467025	1275	2625	-2625	-1350	1570
6/28/2011	468375	600	2750	-2750	-2150	1557.5
6/27/2011	470525	875	4050	-4050	-3175	1555
6/24/2011	473700	2050	2375	-2375	-325	1502.5
6/23/2011	474025	1075	1575	-1575	-500	1432.5
6/22/2011	474525	2650	950	-950	1700	1515
6/21/2011	472825	2525	1550	-1550	975	1372.5
6/20/2011	471850	2575	1550	-1550	1025	1330
6/17/2011	470825	1075	2400	-2400	-1325	1370
6/16/2011	472150	1000	1475	-1475	-475	1387.5
6/15/2011	472625	1150	2200	-2200	-1050	1582.5
6/14/2011	473675	575	2650	-2650	-2075	1925
6/13/2011	475750	350	2525	-2525	-2175	1987.5
6/10/2011	477925	1350	1275	-1275	75	2187.5
6/9/2011	477850	1900	1200	-1200	700	2287.5
6/8/2011	477150	1225	825	-825	400	2100
6/7/2011	476750	2100	1050	-1050	1050	2112.5
6/6/2011	475700	2975	750	-750	2225	2140
6/3/2011	473475	1250	1275	-1275	-25	2152.5
6/2/2011	473500	2950	300	-300	2650	2085
6/1/2011	470850	4575	1500	-1500	3075	1870
5/31/2011	467775	1200	2900	-2900	-1700	1570

5/30/2011	469475	2350	1100	-1100	0	1612.5
5/27/2011	469475	2350	1100	-1100	1250	1472.5
5/26/2011	468225	25	1175	-1175	-1150	1452.5
5/25/2011	469375	1350	1225	-1225	125	1557.5
5/24/2011	469250	2375	1300	-1300	1075	1562.5
5/23/2011	468175	3100	1175	-1175	1925	1457.5
5/20/2011	466250	575	1350	-1350	-775	1437.5
5/19/2011	467025	800	1575	-1575	-775	1537.5
5/18/2011	467800	1575	1350	-1350	225	2030
5/17/2011	467575	1625	1125	-1125	500	2302.5
5/16/2011	467075	950	2400	-2400	-1450	2285
5/13/2011	468525	2150	1350	-1350	800	2375
5/12/2011	467725	1075	1700	-1700	-625	2345
5/11/2011	468350	1400	1375	-1375	25	2422.5
5/10/2011	468325	1325	1600	-1600	-275	2862.5
5/9/2011	468600	2900	1475	-1475	1425	3215
5/6/2011	467175	1575	1850	-1850	-275	3290
5/5/2011	467450	5725	2200	-2200	3525	3497.5
5/4/2011	463925	4300	4175	-4175	125	3290
5/3/2011	463800	1450	1300	-1300	150	3157.5
5/2/2011	463650	1850	1700	-1700	0	3160
4/29/2011	463650	1850	1700	-1700	0	3315
4/28/2011	463650	1850	1700	-1700	150	3180
4/27/2011	463500	5800	2400	-2400	3400	3187.5
4/26/2011	460100	4850	1025	-1025	3825	3040
4/25/2011	456275	3650	1075	-1075	0	2735
4/22/2011	456275	3650	1075	-1075	0	2637.5
4/21/2011	456275	3650	1075	-1075	2575	2547.5
4/20/2011	453700	2975	1225	-1225	1750	2467.5
4/19/2011	451950	1475	1300	-1300	175	2170
4/18/2011	451775	3400	2050	-2050	1350	2622.5
4/15/2011	450425	500	875	-875	-375	2337.5
4/14/2011	450800	1925	1050	-1050	875	2347.5
4/13/2011	449925	4325	1100	-1100	3225	2275
4/12/2011	446700	1800	800	-800	1000	2015
4/11/2011	445700	2675	1150	-1150	1525	2002.5
4/8/2011	444175	2750	950	-950	1800	1892.5
4/7/2011	442375	2850	1350	-1350	1500	2207.5
4/6/2011	440875	0	1450	-1450	-1450	2047.5
4/5/2011	442325	6000	1575	-1575	4425	2097.5
4/4/2011	437900	550	1500	-1500	-950	1955
4/1/2011	438850	600	1600	-1600	-1000	2122.5
3/31/2011	439850	1200	1075	-1075	125	2312.5
3/30/2011	439725	1725	1500	-1500	225	2487.5
3/29/2011	439500	1675	2075	-2075	-400	2515
3/28/2011	439900	1575	950	-950	625	2487.5
3/25/2011	439275	5900	1250	-1250	4650	2500
3/24/2011	434625	1250	775	-775	475	2047.5
3/23/2011	434150	500	700	-700	-200	1960

3/22/2011	434350	4575	725	-725	3850	1910
3/21/2011	430500	2225	1375	-1375	850	1552.5
3/18/2011	429650	2500	1650	-1650	850	1595
3/17/2011	428800	2950	1125	-1125	1825	1582.5
3/16/2011	426975	2000	975	-975	1025	1485
3/15/2011	425950	1400	1450	-1450	-50	1697.5
3/14/2011	426000	1700	1575	-1575	125	1557.5
3/11/2011	425875	1375	975	-975	400	1897.5
3/10/2011	425475	375	625	-625	-250	2345
3/9/2011	425725	0	775	-775	-775	2510
3/8/2011	426500	1000	1650	-1650	-650	2560
3/7/2011	427150	2650	800	-800	1850	2560
3/4/2011	425300	2375	1125	-1125	1250	2717.5
3/3/2011	424050	1975	1475	-1475	500	2657.5
3/2/2011	423550	4125	850	-850	3275	2705
3/1/2011	420275	0	725	-725	-725	2705
2/28/2011	421000	5100	925	-925	4175	2860
2/25/2011	416825	5850	1700	-1700	4150	2980
2/24/2011	412675	2025	1050	-1050	975	2515
2/23/2011	411700	500	550	-550	-50	2472.5
2/22/2011	411750	1000	725	-725	275	2957.5
2/21/2011	411475	4225	675	-675	3550	2912.5
2/18/2011	407925	1775	1050	-1050	725	2515
2/17/2011	407200	2450	1050	-1050	1400	2432.5
2/16/2011	405800	4125	750	-750	3375	2317.5
2/15/2011	402425	1550	900	-900	650	1975
2/14/2011	401775	6300	1250	-1250	5050	1987.5
2/11/2011	396725	1200	1425	-1425	-225	1800
2/10/2011	396950	1600	1050	-1050	550	1985
2/9/2011	396400	5350	975	-975	4375	2215
2/8/2011	392025	550	2050	-2050	-1500	2390
2/7/2011	393525	250	875	-875	-625	3230
2/4/2011	394150	950	1275	-1275	-325	3362.5
2/3/2011	394475	1300	600	-600	700	3507.5
2/2/2011	393775	700	850	-850	-150	3412.5
2/1/2011	393925	1675	1775	-1775	-100	3757.5
1/31/2011	394025	4425	8475	-8475	-4050	3590
1/28/2011	398075	3050	2250	-2250	800	3527.5
1/27/2011	397275	3900	1325	-1325	2575	3222.5
1/26/2011	394700	7100	1475	-1475	5625	2832.5
1/25/2011	389075	8950	1375	-1375	7575	2132.5
1/24/2011	381500	1575	1375	-1375	200	1442.5
1/21/2011	381300	2400	1625	-1625	775	1285
1/20/2011	380525	350	1575	-1575	-1225	1130
1/19/2011	381750	4150	325	-325	3825	1157.5
1/18/2011	377925	0	1075	-1075	-1075	927.5
1/17/2011	379000	3800	1025	-1025	2775	940
1/14/2011	376225	0	1125	-1125	-1125	720
1/13/2011	377350	0	825	-825	-825	880

1/12/2011	378175	100	1575	-1575	-1475	1490
1/11/2011	379650	2050	700	-700	1350	1520
1/10/2011	378300	0	1225	-1225	-1225	1652.5
1/7/2011	379525	850	725	-725	125	1990
1/6/2011	379400	625	475	-475	150	2242.5
1/5/2011	379250	1850	275	-275	1575	2572.5
1/4/2011	377675	125	0	0	125	2582.5
1/3/2011	377550	1600	50	-50	0	2695
12/31/2010	377550	1600	50	-50	1550	2757.5
12/30/2010	376000	6100	1050	-1050	5050	2685
12/29/2010	370950	400	175	-175	225	2417.5
12/28/2010	370725	3375	375	-375	0	3160
12/27/2010	370725	3375	375	-375	0	2955
12/24/2010	370725	3375	375	-375	3000	2957.5
12/23/2010	367725	3925	150	-150	3775	2652.5
12/22/2010	363950	1950	725	-725	1225	2335
12/21/2010	362725	1250	1100	-1100	150	2232.5
12/20/2010	362575	2225	1050	-1050	1175	2107.5
12/17/2010	361400	875	275	-275	600	1987.5
12/16/2010	360800	3425	575	-575	2850	2157.5
12/15/2010	357950	7825	775	-775	7050	1815
12/14/2010	350900	1325	875	-875	450	1042.5
12/13/2010	350450	3400	1575	-1575	1825	910
12/10/2010	348625	325	1150	-1150	-825	570
12/9/2010	349450	750	1550	-1550	-800	637.5
12/8/2010	350250	925	2050	-2050	-1125	597.5
12/7/2010	351375	0	1000	-1000	-1000	505
12/6/2010	352375	1025	2275	-2275	-1250	540
12/3/2010	353625	2575	1375	-1375	1200	577.5
12/2/2010	352425	0	2425	-2425	-2425	370
12/1/2010	354850	100	1000	-1000	-900	370
11/30/2010	355750	0	800	-800	-800	365
11/29/2010	356550	0	450	-450	-450	365
11/26/2010	357000	1000	550	-550	450	377.5
11/25/2010	356550	350	925	-925	-575	370
11/24/2010	357125	0	925	-925	-925	382.5
11/23/2010	358050	350	1300	-1300	-950	385
11/22/2010	359000	1400	2225	-2225	-825	405
11/19/2010	359825	500	1275	-1275	-775	265
11/18/2010	360600	0	525	-525	-525	265
11/17/2010	361125	50	900	-900	-850	437.5
11/16/2010	361975	0	725	-725	-725	432.5
11/15/2010	362700	125	200	-200	-75	462.5
11/12/2010	362775	925	1100	-1100	-175	475
11/11/2010	362950	475	1475	-1475	-1000	557.5
11/10/2010	363950	25	950	-950	-925	542.5
11/9/2010	364875	550	875	-875	-325	785
11/8/2010	365200	0	1150	-1150	-1150	730
11/5/2010	366350	500	1475	-1475	-975	800

11/4/2010	367325	1725	475	-475	1250	750
11/3/2010	366075	0	875	-875	-875	582.5
11/2/2010	366950	300	925	-925	-625	717.5
11/1/2010	367575	250	1175	-1175	-925	695
10/29/2010	368500	1750	1275	-1275	475	700
10/28/2010	368025	325	900	-900	-575	565
10/27/2010	368600	2450	1325	-1325	1125	655
10/26/2010	367475	0	900	-900	-900	465
10/25/2010	368375	700	1150	-1150	-450	465
10/22/2010	368825	0	1175	-1175	-1175	545
10/21/2010	370000	50	800	-800	-750	545
10/20/2010	370750	1350	550	-550	800	635
10/19/2010	369950	75	575	-575	-500	640
10/18/2010	370450	300	875	-875	-575	727.5
10/15/2010	371025	400	875	-875	-475	937.5
10/14/2010	371500	1225	1000	-1000	225	1027.5
10/13/2010	371275	550	1025	-1025	-475	995
10/12/2010	371750	0	725	-725	-725	1095
10/11/2010	372475	1500	1025	-1025	475	1115
10/8/2010	372000	0	1450	-1450	-1450	965
10/7/2010	373450	950	1625	-1625	-675	1165
10/6/2010	374125	1400	1375	-1375	25	1100
10/5/2010	374100	950	1300	-1300	-350	1477.5
10/4/2010	374450	2400	1750	-1750	650	1382.5
10/1/2010	373800	1300	1650	-1650	-350	1202.5
9/30/2010	374150	900	1850	-1850	-950	1072.5
9/29/2010	375100	1550	1725	-1725	-175	982.5
9/28/2010	375275	200	3050	-3050	-2850	1267.5
9/27/2010	378125	0	2100	-2100	-2100	1340
9/24/2010	380225	2000	1900	-1900	100	1375
9/23/2010	380125	300	2275	-2275	-1975	1175
9/22/2010	382100	5175	3100	-3100	2075	1220
9/21/2010	380025	0	2475	-2475	-2475	702.5
9/20/2010	382500	600	2300	-2300	-1700	702.5
9/17/2010	384200	0	2950	-2950	-2950	732.5
9/16/2010	387150	0	2350	-2350	-2350	732.5
9/15/2010	389500	4400	5425	-5425	-1025	1020
9/14/2010	390525	925	850	-850	75	767.5
9/13/2010	390450	350	1300	-1300	-950	675
9/10/2010	391400	0	1975	-1975	-1975	657.5
9/9/2010	393375	750	1875	-1875	-1125	675
9/8/2010	394500	0	975	-975	-975	600
9/7/2010	395475	0	1400	-1400	-1400	600
9/6/2010	396875	900	1700	-1700	-800	852.5
9/3/2010	397675	0	1800	-1800	-1800	975
9/2/2010	399475	2875	2175	-2175	700	977.5
9/1/2010	398775	1875	1625	-1625	250	915
8/31/2010	398525	0	1575	-1575	-1575	727.5
8/30/2010	400100	175	1325	-1325	0	727.5

10	10	NLSAH Index		COMXCOPR Comdty			10	
LME Cu Sto	LME Cu Sto	LME Cu Stocks	(Days o	LME Al Sto	COMEX Cu	COMEX Ne	COMEX Stock	Net Char
#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	
-1355	147.5	4.3	4818725	35.8	51848	-237	-295.2	60000
-1485	57.5	4.3	4809525	35.7	52085	-452	-307.9	
-1487.5	317.5	4.3	4805775	35.7	52537	0	-287.1	
-1445	350	4.3	4812625	35.8	52537	-411	-297.7	50000
-1392.5	717.5	4.3	4822650	35.8	52948	-387	-282.3	
-1412.5	770	4.4	4833925	35.9	53335	-400	-288.9	
-1337.5	1102.5	4.3	4844725	36.0	53735	-126	-292.9	40000
-1337.5	1145	4.3	4839150	36.0	53861	-148	-328.5	
-1297.5	1370	4.3	4849975	36.0	54009	-386	-354.5	
-1370	1800	4.3	4851700	36.1	54395	-405	-349.3	30000
-1362.5	2330	4.3	4861375	36.1	54800	-364	-306.5	
-1300	2285	4.3	4847075	36.0	55164	-244	-314.4	20000
-1592.5	1915	4.2	4858075	36.1	55408	-106	-337.1	
-1595	2080	4.3	4860575	36.1	55514	-257	-335.5	
-1705	1825	4.2	4849600	36.0	55771	-453	-329.9	10000
-1762.5	1857.5	4.2	4847550	36.0	56224	-440	-284.6	
-1885	1440	4.2	4860925	36.1	56664	-482	-308.8	
-1887.5	1632.5	4.1	4835125	35.9	57146	-408	-286.2	
-1757.5	1375	4.1	4848625	36.0	57554	-334	-272.3	
-1690	1215	4.0	4860200	36.1	57888	23	-280.9	
-1862.5	617.5	3.9	4864200	36.2	57865	-443	-283.2	
-1975	522.5	3.9	4875375	36.2	58308	-471	-280.8	6000
-1837.5	550	3.9	4904125	36.5	58779	-90	-269	
-1875	690	3.9	4917200	36.5	58869	-201	-294.9	4000
-2137.5	650	3.9	4917200	36.5	59070	0	-309.8	
-2250	970	3.9	4917200	36.5	59070	-682	-402.3	
-2230	1322.5	3.9	4918925	36.6	59752	-256	-439.3	2000
-2447.5	1175	3.8	4929350	36.6	60008	-269	-499.7	
-2827.5	945	3.8	4937600	36.7	60277	-420	-566.2	
-3302.5	475	3.8	4945325	36.8	60697	0	-626.4	
-3652.5	222.5	3.8	4943900	36.7	60697	-419	-745.7	-2000
-3890	422.5	3.8	4956325	36.8	61116	-353	-778.8	
-4065	477.5	3.8	4952975	36.8	61469	-349	-819.4	
-5222.5	-447.5	3.8	4958000	36.9	61818	-350	-869.6	-4000
-5310	-625	3.8	4964850	36.9	62168	-925	-945.4	
-5670	-945	3.7	4975175	37.0	63093	-1052	-934.5	-6000
-6162.5	-1775	3.7	4982900	37.0	64145	-860	-922.7	
-6415	-2360	3.6	4976500	37.0	65005	-934	-917.2	
-6480	-2520	3.7	4984650	37.1	65939	-1022	-911.2	-8000
-6782.5	-3005	3.7	4949900	36.8	66961	-1193	-904.3	
-6757.5	-3055	3.7	4951125	36.8	68154	-750	-801.7	
-6790	-3550	3.7	4946825	36.8	68904	-759	-756.7	
-6685	-3547.5	3.7	4959425	36.9	69663	-851	-773.2	1000
-5637.5	-2842.5	3.9	4980300	37.0	70514	-1108	-748.7	

-5322.5	-2822.5	3.9	4990075	37.1	71622	-816	-722.1
-4940	-3052.5	3.9	4990075	37.1	72438	-934	-686
-4547.5	-2750	4.0	5004200	37.2	73372	-805	-691.3
-4265	-2220	4.0	5015500	37.3	74177	-874	-710
-4160	-1952.5	4.1	5014500	37.3	75051	-953	-682.3
-3540	-1335	4.2	5024900	37.3	76004	-167	-652.4
-3215	-1257.5	4.3	5035625	37.4	76171	-300	-649.3
-2955	-1072.5	4.3	5046350	37.5	76471	-924	-669.8
-2875	-1075	4.3	5055675	37.6	77395	-606	-615.7
-2972.5	-1152.5	4.4	5046350	37.5	78001	-842	-587.7
-2887.5	-592.5	4.4	5052700	37.6	78843	-455	-542.8
-2730	-362.5	4.4	5058475	37.6	79298	-987	-523.7
-2582.5	-207.5	4.4	5062125	37.6	80285	-992	-425
-2370	147.5	4.4	5071000	37.7	81277	-597	-379.9
-2395	42.5	4.4	5079900	37.8	81874	-654	-393
-2510	415	4.4	5045275	37.5	82528	-136	-388.6
-2332.5	812.5	4.5	5052700	37.6	82664	-505	-385.9
-2250	1045	4.5	5059875	37.6	83169	-383	-399.1
-2220	1100	4.5	5050925	37.5	83552	-326	-456.6
-2045	1082.5	4.5	5066625	37.7	83878	-393	-499.4
-2032.5	1077.5	4.5	5059075	37.6	84271	-264	-550.7
-2122.5	960	4.5	5059075	37.6	84535	0	-542.6
-2187.5	932.5	4.5	5059075	37.6	84535	-541	-551.7
-2360	135	4.4	5064600	37.6	85076	-728	-508.4
-2305	-17.5	4.4	5071100	37.7	85804	-610	-509.6
-2185	-502.5	4.4	5076925	37.7	86414	-109	-451
-2255	-755	4.3	5063350	37.6	86523	-637	-440.1
-2515	-1212.5	4.3	5068575	37.7	87160	-958	-396.7
-2602.5	-1447.5	4.3	5072525	37.7	88118	-754	-302.7
-2717.5	-1542.5	4.4	5078225	37.7	88872	-906	-227.3
-2795	-1992.5	4.3	5083300	37.8	89778	-183	-138.1
-2860	-2085	4.3	5089250	37.8	89961	-91	-119.8
-3105	-2457.5	4.3	5083900	37.8	90052	-108	-117.1
-3125	-2257.5	4.4	5088775	37.8	90160	-740	-101.7
-3082.5	-2275	4.4	5081950	37.8	90900	-24	-29.8
-3155	-2325	4.4	5068950	37.7	90924	0	-63.2
-3260	-2517.5	4.5	5071950	37.7	90924	-203	-63.2
-3190	-2450	4.5	5073350	37.7	91127	-18	-52
-3282.5	-2580	4.6	5071675	37.7	91145	0	-48.3
-3212.5	-2585	4.6	5079500	37.8	91145	-14	-41.4
-3355	-2655	4.6	5087925	37.8	91159	0	-26.4
-3362.5	-2747.5	4.7	5090525	37.8	91159	-64	46.2
-3052.5	-2485	4.7	5098325	37.9	91223	46	50.4
-2822.5	-2482.5	4.8	5088275	37.8	91177	-21	90.7
-2600	-2185	4.8	5087975	37.8	91198	-358	113.5
-2532.5	-2005	4.8	5096075	37.9	91556	0	131.5
-2520	-1737.5	4.9	5101150	37.9	91556	-91	131.5
-2670	-1887.5	4.9	5103000	37.9	91647	19	134.4
-2495	-1662.5	5.0	5107775	38.0	91628	69	168.8

-2477.5	-1495	5.1	5113425	38.0	91559	136	185.6
-2332.5	-1302.5	5.1	5115775	38.0	91423	726	173.9
-2205	-925	5.1	5115475	38.0	90697	-22	109.8
-2205	-872.5	5.2	5118775	38.0	90719	449	123.4
-2377.5	-1062.5	5.2	5124100	38.1	90270	207	129.2
-2697.5	-1457.5	5.2	5125800	38.1	90063	-178	148.6
-2772.5	-1727.5	5.2	5117075	38.0	90241	0	192.2
-2762.5	-1972.5	5.2	5120650	38.1	90241	-62	179.7
-2572.5	-1755	5.3	5117975	38.0	90303	363	171.4
-2407.5	-1625	5.3	5121300	38.1	89940	237	119.4
-2320	-1702.5	5.3	5114175	38.0	89703	19	64.3
-2342.5	-1962.5	5.3	5064275	37.6	89684	85	3.3
-2397.5	-2267.5	5.3	5027450	37.4	89599	114	-5.2
-2602.5	-2427.5	5.3	5027475	37.4	89485	507	-56.6
-2515	-2340	5.4	5031250	37.4	88978	401	-136.3
-2435	-2225	5.4	5019075	37.3	88577	258	-147.8
-2460	-2262.5	5.5	5019525	37.3	88319	-125	-191.7
-2462.5	-2265	5.5	4989000	37.1	88444	-145	-137.1
-2422.5	-2252.5	5.6	4992500	37.1	88589	-157	-123.8
-2475	-2320	5.6	4996275	37.1	88746	-314	-87.5
-2435	-2260	5.6	4994425	37.1	89060	-591	-68.4
-2382.5	-2145	5.6	4996475	37.1	89651	0	-7.1
-2377.5	-2140	5.7	4996650	37.1	89651	-400	-7.1
-2220	-2037.5	5.7	5000150	37.2	90051	-290	35.1
-2632.5	-2450	5.8	5003800	37.2	90341	286	128.7
-2510	-2312.5	5.8	5007200	37.2	90055	-181	150.5
-2302.5	-2112.5	5.9	5010750	37.2	90236	421	207.3
-2187.5	-1937.5	5.9	5005050	37.2	89815	-12	165.2
-2082.5	-1720	5.9	5005225	37.2	89827	206	175.4
-2077.5	-1665	6.0	5005150	37.2	89621	-123	163.8
-2207.5	-1815	6.0	5006525	37.2	89744	22	176.1
-2112.5	-1632.5	6.0	4967450	36.9	89722	0	173.9
-1980	-1407.5	6.0	4970550	36.9	89722	22	173.9
-1885	-1215	6.1	4973725	37.0	89700	646	171.7
-1455	-737.5	6.2	4962650	36.9	89054	504	112.2
-1385	-692.5	6.2	4966475	36.9	88550	387	80.8
-1385	-540	6.2	4971075	36.9	88163	0	53.7
-1355	-417.5	6.2	4975600	37.0	88163	90	53.7
-1367.5	-355	6.2	4980625	37.0	88073	90	32.1
-1270	-215	6.3	4983175	37.0	87983	0	17
-1060	72.5	6.3	4978750	37.0	87983	0	39.5
-1310	-305	6.3	4970400	36.9	87983	0	40.3
-2177.5	-1035	6.6	4970400	40.0	87983	0	40.3
-2360	-1167.5	6.6	4969600	40.0	87983	51	29.5
-2372.5	-1052.5	6.6	4971375	40.0	87932	190	25.1
-2417.5	-1072.5	6.6	4950550	39.9	87742	116	-10.6
-2522.5	-1327.5	6.6	4950550	39.9	87626	0	-8.6
-2447.5	-1377.5	6.6	4950550	39.9	87626	-126	-11.1
-2502.5	-1545	6.6	4953025	39.9	87752	-61	1.5

-2730	-1815	6.6	4953725	39.9	87813	225	9.1
-2877.5	-1925	6.6	4922800	39.6	87588	8	-9.4
-2622.5	-1555	6.6	4873025	39.2	87580	0	-1
-1680	-690	6.8	4822725	38.8	87580	-108	0.9
-1482.5	-462.5	6.8	4825475	38.9	87688	7	36.4
-1377.5	-447.5	6.8	4826275	38.9	87681	-167	64.1
-1675	-750	6.8	4811550	38.8	87848	136	110.5
-1652.5	-720	6.8	4715700	38.0	87712	-25	125.7
-1890	-865	6.8	4589050	37.0	87737	0	133.2
-1942.5	-857.5	6.9	4546050	36.6	87737	15	133.2
-1872.5	-807.5	6.9	4549000	36.6	87722	40	131.7
-1827.5	-697.5	6.9	4549800	36.6	87682	92	109.7
-1850	-647.5	6.9	4550075	36.6	87590	19	94.1
-2162.5	-1010	6.9	4554975	36.7	87571	247	92.2
-2245	-1292.5	6.9	4557650	36.7	87324	284	33.9
-2360	-1430	6.9	4560350	36.7	87040	297	-11.9
-2267.5	-1277.5	6.9	4563000	36.8	86743	288	-56
-2242.5	-1262.5	7.0	4562675	36.7	86455	50	-111.4
-2215	-1297.5	7.0	4562675	36.7	86405	0	-123.8
-2187.5	-1405	7.0	4565300	36.8	86405	0	-172.5
-2285	-1462.5	7.0	4568375	36.8	86405	-180	-207.7
-2232.5	-1525	7.0	4554075	36.7	86585	-64	-200
-2420	-1935	7.0	4557325	36.7	86649	0	-222.8
-2387.5	-1960	7.1	4560275	36.7	86649	-336	-232.9
-2655	-2250	7.1	4561050	36.7	86985	-174	-228.6
-2707.5	-2235	7.1	4560975	36.7	87159	-144	-238.1
-2512.5	-2145	7.2	4562600	36.7	87303	-266	-251.6
-2812.5	-2397.5	7.2	4530550	36.5	87569	-74	-234.8
-3067.5	-2467.5	7.2	4533675	36.5	87643	-487	-204.2
-3487.5	-2465	7.3	4536875	36.5	88130	-352	-117.5
-3480	-2527.5	7.3	4540925	36.6	88482	-103	-51.8
-3650	-2682.5	7.3	4543575	36.6	88585	-292	-7.6
-3937.5	-2895	7.4	4546475	36.6	88877	-101	21.3
-3992.5	-2995	7.4	4545725	36.6	88978	-293	38.3
-3890	-2872.5	7.5	4544850	36.6	89271	-269	76
-3837.5	-2890	7.5	4546675	36.6	89540	-279	102.9
-4102.5	-2717.5	7.5	4548025	36.6	89819	-98	141.7
-4100	-2227.5	7.6	4548025	36.6	89917	232	152.5
-3940	-1782.5	7.7	4551075	36.7	89685	380	135.9
-3577.5	-1842.5	7.7	4554450	36.7	89305	305	91.4
-3692.5	-1957.5	7.8	4557000	36.7	89000	339	65.7
-3692.5	-1937.5	7.8	4558850	36.7	88661	-3	54.3
-3547.5	-1825	7.9	4561375	36.7	88664	69	63.1
-3652.5	-1930	7.9	4564975	36.8	88595	84	54.7
-3907.5	-2087.5	8.0	4569875	36.8	88511	0	75.3
-4035	-2275	8.0	4571625	36.8	88511	109	88.9
-3792.5	-2310	8.0	4574350	36.8	88402	10	83.5
-3335	-2330	8.0	4557400	36.7	88392	66	81.4
-3102.5	-2350	8.0	4548575	36.6	88326	-65	81.1

-2912.5	-1760	8.0	4551675	36.7	88391	48	104.4
-2675	-967.5	8.1	4555700	36.7	88343	225	89.9
-2692.5	-887.5	8.1	4558675	36.7	88118	85	72.8
-2350	-105	8.2	4544725	36.6	88033	-15	74.8
-1990	255	8.3	4548725	36.6	88048	290	113.1
-1582.5	565	8.4	4551750	36.7	87758	136	100
-1420	797.5	8.4	4556600	36.7	87622	55	107.2
-1392.5	810	8.4	4558250	36.7	87567	-11	134.4
-1617.5	582.5	8.4	4563750	36.8	87578	63	168
-1607.5	767.5	8.4	4567325	36.8	87515	168	161.7
-1575	455	8.3	4569075	36.8	87347	-97	142.4
-1510	-10	8.3	4573025	36.8	87444	54	152.1
-1275	140	8.3	4578225	36.9	87390	105	155.2
-1252.5	-155	8.2	4583800	36.9	87285	368	151.2
-1165	-67.5	8.2	4588275	37.0	86917	159	133.9
-997.5	80	8.3	4592625	37.0	86758	208	147
-860	170	8.3	4592900	37.0	86550	327	128.7
-745	155	8.3	4599350	37.0	86223	325	96.2
-507.5	352.5	8.3	4579475	36.9	85898	0	63.7
-440	-5	8.3	4581750	36.9	85898	-25	63.7
-402.5	152.5	8.3	4588400	37.0	85923	0	61.8
-445	295	8.3	4595525	37.0	85923	85	44.2
-642.5	162.5	8.3	4601225	37.1	85838	65	0.7
-817.5	20	8.2	4608825	37.1	85773	195	-15.6
-850	30	8.2	4604700	37.1	85578	290	-69.2
-887.5	197.5	8.2	4609750	37.1	85288	25	-96.6
-940	147.5	8.2	4614775	37.2	85263	2	-79.1
-1037.5	35	8.3	4618600	37.2	85261	0	-32.1
-1127.5	-70	8.3	4623900	37.2	85261	0	21.1
-1095	260	8.3	4628125	37.3	85261	-44	21.1
-1110	165	8.2	4632525	37.3	85305	-176	67.7
-1170	-80	8.2	4632450	37.3	85481	-350	123.5
-1045	-90	8.2	4642725	37.4	85831	-98	199
-842.5	432.5	8.2	4649000	37.4	85929	-341	251.9
-917.5	315	8.2	4649000	37.4	86270	16	295.1
-1017.5	15	8.2	4654275	37.5	86254	200	305.5
-1080	-25	8.2	4646975	37.4	86054	472	303.5
-1072.5	32.5	8.2	4654275	37.5	85582	532	272.2
-1032.5	100	8.3	4662375	37.6	85050	0	225.5
-1042.5	-165	8.2	4669850	37.6	85050	422	225.5
-1070	-235	8.2	4565425	36.8	84628	382	187.5
-972.5	-122.5	8.2	4572250	36.8	84246	405	149.3
-980	-35	8.2	4579350	36.9	83841	431	108.8
-1097.5	-542.5	8.2	4557675	36.7	83410	91	65.7
-1142.5	-477.5	8.2	4564225	36.8	83319	120	56.6
-1182.5	-520	8.2	4572575	36.8	83199	180	59.6
-1267.5	-577.5	8.2	4580800	36.9	83019	159	73.2
-1337.5	-440	8.2	4394825	35.4	82860	65	99.8
-1510	-590	8.2	4404775	35.5	82795	0	119.9

-1727.5	-720	8.2	4411175	35.5	82795	42	142.4
-1917.5	-872.5	8.3	4420175	35.6	82753	0	138.2
-1940	-185	8.3	4429900	35.7	82753	0	153.7
-1887.5	-177.5	8.3	4437475	35.7	82753	0	191.5
-1897.5	307.5	8.3	4445600	35.8	82753	0	203.7
-1810	452.5	8.3	4453250	35.9	82753	150	203.7
-1707.5	632.5	8.3	4461425	35.9	82603	316	210.5
-1587.5	782.5	8.3	4369000	35.2	82287	425	196.9
-1480	747.5	8.3	4376625	35.2	81862	266	167.8
-1347.5	957.5	8.4	4382225	35.3	81596	225	154
-1147.5	1047.5	8.4	4392550	35.4	81371	0	130.8
-930	1210	8.4	4400225	35.4	81371	155	123.3
-910	642.5	8.3	4407550	35.5	81216	378	112.6
-982.5	490	8.3	4416425	35.6	80838	122	59.8
-862.5	22.5	8.2	4404225	35.5	80716	0	51.2
-995	-142.5	8.2	4412175	35.5	80716	218	51.2
-1177.5	-322.5	8.2	4410650	35.5	80498	180	39.3
-1257.5	-505	8.2	4418550	35.6	80318	134	37.6
-1440	-675	8.2	4424825	35.6	80184	128	42.5
-1587.5	-890	8.2	4431325	35.7	80056	-7	45.6
-1925	-1185	8.2	4440225	35.8	80063	-75	62.2
-2117.5	-1207.5	8.2	4449175	35.8	80138	48	74.6
-2180	-1325	8.2	4458800	35.9	80090	-150	47.3
-2140	-1032.5	8.2	4465125	36.0	80240	36	18.2
-2237.5	-912.5	8.2	4475425	36.0	80204	0	-0.4
-2185	-737.5	8.2	4487600	36.1	80204	99	-0.4
-2162.5	-690	8.2	4499650	36.2	80105	163	-25.7
-2130	-560	8.3	4509950	36.3	79942	183	-42
-2087.5	-530	8.3	4523250	36.4	79759	159	-61.5
-2077.5	-522.5	8.3	4533250	36.5	79600	159	-112
-1925	-422.5	8.4	4544725	36.6	79441	49	-129.1
-1815	-382.5	8.4	4555550	36.7	79392	-225	-164.8
-1777.5	-262.5	8.4	4566675	36.8	79617	-441	-144.8
-1765	-392.5	8.4	4579625	36.9	80058	-150	-104.4
-1715	-385	8.4	4590300	37.0	80208	0	-80.3
-1635	-265	8.3	4602425	37.1	80208	-154	-80.3
-1522.5	-135	8.4	4612550	37.1	80362	0	-64.9
-1405	177.5	8.4	4621725	37.2	80362	-12	-64.9
-1335	590	8.4	4631200	37.3	80374	-346	-63.7
-1360	627.5	8.4	4636925	37.3	80720	-12	-29.1
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-1200	962.5	8.5	4653100	37.5	81040	-25	2.9
-1197.5	777.5	8.5	4660050	37.5	81065	-37	5.4
-1237.5	750	8.5	4667850	37.6	81102	91	6.9
-1262.5	752.5	8.4	4673450	37.6	81011	0	-9.2
-1305	722.5	8.4	4680925	37.7	81011	0	-18
-1312.5	647.5	8.4	4685100	37.7	81011	0	-40.1
-1440	305	8.3	4691450	37.8	81011	0	-57.6
-1425	20	8.3	4699300	37.8	81011	0	-82.1

-1247.5	240	8.3	4702825	37.9	81011	0	-104
-1377.5	95	8.3	4702825	37.9	81011	0	-106.2
-1402.5	50	8.3	4706100	37.9	81011	0	-108.4
-1455	102.5	8.3	4706675	37.9	81011	-22	-114.9
-1470	92.5	8.3	4707125	37.9	81033	-70	-125.9
-1500	-42.5	8.3	4706425	37.9	81103	-88	-134.4
-1530	-92.5	8.3	4708750	37.9	81191	-221	-127.7
-1580	-42.5	8.3	4709825	37.9	81412	-175	-124.9
-1642.5	387.5	8.3	4711875	37.9	81587	-245	-126.8
-1925	377.5	8.3	4710550	37.9	81832	-219	-120
-1942.5	342.5	8.3	4687925	37.8	82051	-22	-111.4
-1872.5	487.5	8.3	4622825	37.2	82073	-22	-111.7
-1907.5	407.5	8.3	4590750	37.0	82095	-65	-104.4
-1907.5	485	8.3	4592000	37.0	82160	-132	-97.9
-2010	822.5	8.3	4594750	37.0	82292	-155	-75.9
-1952.5	1232.5	8.3	4596875	37.0	82447	-21	-52.9
-1912.5	1090	8.3	4600325	37.1	82468	-193	-55.1
-1835	1117.5	8.3	4603350	37.1	82661	-194	-35.8
-1722.5	1022.5	8.2	4606000	37.1	82855	-177	-38.1
-1427.5	1185	8.2	4611375	37.1	83032	-133	-32.8
-1427.5	1187.5	8.2	4612050	37.1	83165	-25	-53.5
-1462.5	1322.5	8.2	4612050	37.1	83190	51	-51
-1380	1285	8.2	4612050	37.1	83139	0	-80.4
-1315	1357.5	8.2	4606100	37.1	83139	88	-102.1
-1185	1340	8.2	4600175	37.0	83051	75	-117.1
-1162.5	1057.5	8.1	4603075	37.1	82976	-43	-151.2
-1170	1210	8.1	4603075	37.1	83019	0	-147.9
-1157.5	1390	8.1	4603075	37.1	83019	-217	-163.5
-1185	1282.5	8.0	4604800	37.1	83236	-124	-159.3
-1207.5	962.5	8.0	4595525	37.0	83360	-340	-146.9
-1235	1387.5	8.0	4564975	36.8	83700	0	-112.9
-1180	1157.5	8.0	4566375	36.8	83700	-243	-112.9
-1252.5	1095	8.0	4569125	36.8	83943	-217	-78.2
-1255	1020	8.0	4571200	36.8	84160	-62	-58.7
-1295	720	7.9	4575250	36.8	84222	-266	-52.5
-1422.5	580	7.9	4577525	36.9	84488	-10	-23.7
-1402.5	490	7.9	4581775	36.9	84498	-156	-22.7
-1432.5	775	7.8	4584475	36.9	84654	-175	2.6
-1375	672.5	7.8	4589000	37.0	84829	0	17.6
-1300	797.5	7.8	4593175	37.0	84829	0	11.4
-1215	740	7.8	4588700	37.0	84829	0	34.3
-1202.5	920	7.8	4592075	37.0	84829	104	32.2
-1207.5	1105	7.8	4595375	37.0	84725	-22	8.1
-1212.5	1275	7.8	4598925	37.0	84747	0	-3.4
-1160	1355	7.8	4602600	37.1	84747	22	-16.5
-1097.5	1390	7.8	4606100	37.1	84725	0	-27.7
-1160	1340	7.8	4602950	37.1	84725	97	-30.4
-1132.5	915	7.7	4608875	37.1	84628	-25	-4
-1117.5	842.5	7.7	4594450	37.0	84653	-62	19

-1125	785	7.7	4600925	37.1	84715	229	32.1
-1217.5	335	7.6	4606175	37.1	84486	-21	121.6
-1160	435	7.6	4612825	37.2	84507	-137	123.6
-1107.5	475	7.6	4619400	37.2	84644	-137	136.1
-1142.5	342.5	7.6	4620450	37.2	84781	-131	149.8
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-1057.5	500	7.6	4585750	36.9	85002	-27	206.7
-992.5	905	7.6	4590300	37.0	85029	361	212.9
-1065	1280	7.5	4597350	37.0	84668	205	241.2
-1107.5	1402.5	7.5	4602725	37.1	84463	69	331
-1085	1475	7.6	4601925	37.1	84394	1124	371.4
-992.5	1567.5	7.6	4602250	37.1	83270	-1	292.1
-980	1737.5	7.5	4606200	37.1	83271	-12	292.2
-972.5	1685	7.5	4598950	37.0	83283	0	335.7
-930	1775	7.5	4604425	37.1	83283	0	541.6
-920	1785	7.5	4606625	37.1	83283	348	583.3
-937.5	1922.5	7.5	4611475	37.1	82935	35	582.7
-970	2010	7.4	4610875	37.1	82900	644	619.1
-942.5	1572.5	7.3	4615500	37.2	82256	1103	596.5
-942.5	1530	7.3	4620500	37.2	81153	473	513.2
-985	1972.5	7.3	4621350	37.2	80680	331	521.6
-1117.5	1795	7.3	4621325	37.2	80349	0	564.7
-1137.5	1377.5	7.2	4593175	37.0	80349	423	666.5
-1160	1272.5	7.2	4598200	37.0	79926	2059	649.3
-1115	1202.5	7.2	4597925	37.0	77867	417	464.7
-1125	850	7.1	4600225	37.0	77450	342	538.1
-1212.5	775	7.1	4594725	37.0	77108	399	643.8
-1935	-135	7.0	4599450	37.0	76709	418	644
-2017.5	-32.5	7.0	4601775	37.1	76291	270	639.7
-2045	170	7.0	4600650	37.1	76021	557	737.9
-2095	295	7.0	4561425	36.7	75464	762	937.8
-2027.5	1202.5	7.0	4562625	36.7	74702	1018	866.6
-2077.5	1285	7.0	4530975	36.5	73684	251	764.8
-2112.5	1395	7.0	4533875	36.5	73433	213	756
-2210	1202.5	7.0	4525550	36.4	73220	1151	766.4
-2157.5	1600	7.0	4525850	36.5	72069	1399	635.9
-2087.5	1502.5	7.0	4521225	36.4	70670	401	529.5
-1342.5	2185	7.1	4524675	36.4	70269	375	489.4
-1230	1992.5	7.0	4530725	36.5	69894	1252	489.6
-1180	1652.5	7.0	4536200	36.5	68642	2556	382.3
-1190	942.5	6.9	4541175	36.6	66086	50	131.1
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-1107.5	177.5	6.8	4550325	36.6	66036	163	126
-1017.5	112.5	6.7	4486325	36.1	65873	317	98.5
-907.5	250	6.8	4485675	36.1	65556	-154	66.8
-902.5	25	6.7	4461975	35.9	65710	335	82.2
-795	145	6.7	4431350	35.7	65375	0	42.4
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-590	135	6.7	4434950	35.7	64998	179	38.5

-612.5	722.5	6.7	4408350	35.5	64819	44	21
-472.5	892.5	6.7	4393700	35.4	64775	-23	11.6
-440	757.5	6.7	4369500	35.2	64798	22	56.8
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-442.5	1497.5	6.7	4277050	34.4	64951	338	73.1
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-565	1520	7.0	4280600	37.1	64613	4	-15.8
-517.5	1300	6.9	4272575	37.0	64609	-50	-74
-577.5	1982.5	6.9	4275275	37.1	64659	429	-130.7
-627.5	2027.5	6.9	4275275	37.1	64230	0	-249.6
-747.5	2210	6.9	4275275	37.1	64230	0	-330.9
-825	1827.5	6.9	4281500	37.1	64230	-76	-384.7
-965	1370	6.8	4275725	37.1	64306	-28	-405.4
-1097.5	1135	6.8	4279575	37.1	64334	114	-444.5
-1087.5	1020	6.8	4282900	37.1	64220	-401	-529.6
-1210	777.5	6.8	4287600	37.2	64621	-150	-573.4
-1320	837.5	6.7	4289300	37.2	64771	-578	-606
-1505	310	6.7	4293925	37.2	65349	-617	-586.7
-1527.5	-485	6.6	4283600	37.1	65966	-760	-575
-1520	-610	6.5	4272375	37.0	66726	-813	-551.9
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-1347.5	-710	6.5	4278300	37.1	68077	-283	-446.9
-1285	-687.5	6.5	4281425	37.1	68360	-419	-418.6
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-1202.5	-662.5	6.6	4291725	37.2	69516	-839	-355.5
-1197.5	-620	6.6	4285500	37.1	70355	-476	-279.1
-1187.5	-817.5	6.6	4284300	37.1	70831	-385	-261.5
-997.5	-627.5	6.6	4288750	37.2	71216	-500	-239.4
-987.5	-622.5	6.6	4288125	37.2	71716	-529	-214.5
-980	-615	6.7	4281325	37.1	72245	-151	-195.3
-955	-577.5	6.7	4284125	37.1	72396	-150	-188.9
-1010	-640	6.7	4287900	37.2	72546	0	-178.9
-1065	-682.5	6.7	4291675	37.2	72546	-300	-178.9
-1067.5	-682.5	6.7	4294600	37.2	72846	-225	-148.9
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-917.5	-652.5	6.7	4302125	37.3	73146	-300	-156.3
-937.5	-672.5	6.7	4305125	37.3	73446	-164	-126.3
-932.5	-495	6.7	4305900	37.3	73610	-251	-120.6
-930	-497.5	6.8	4299125	37.3	73861	-337	-115.2
-950	-487.5	6.8	4252125	36.9	74198	-87	-90.2
-1047.5	-572.5	6.8	4252550	36.9	74285	-50	-81.5
-1065	-507.5	6.8	4255175	36.9	74335	0	-91.8
-1007.5	-465	6.8	4262400	36.9	74335	0	-112.4
-1045	-260	6.8	4270975	37.0	74335	-245	-128.7
-1047.5	-317.5	6.8	4281450	37.1	74580	-129	-113
-1047.5	-247.5	6.8	4284275	37.1	74709	0	-116.5

-1017.5	-267.5	6.9	4294625	37.2	74709	-107	-156.8
-1050	-467.5	6.8	4299075	37.3	74816	-197	-194.6
-1017.5	-300	6.9	4297675	37.3	75013	-87	-250.8
-982.5	-287.5	6.9	4303075	37.3	75100	0	-266.5
-952.5	-252.5	6.9	4306350	37.3	75100	-153	-332.4
-912.5	-347.5	6.9	4307375	37.3	75253	-206	-418.3
-922.5	-267.5	6.9	4310975	37.4	75459	-163	-493.5
-892.5	-427.5	6.9	4315075	37.4	75622	-88	-558.2
-875	-410	6.9	4319275	37.4	75710	-164	-588.7
-862.5	-317.5	6.9	4320950	37.5	75874	-403	-682.8
-890	-345	6.9	4325125	37.5	76277	-485	-722.8
-972.5	-337.5	6.9	4329825	37.5	76762	-759	-674.3
-1055	-415	6.9	4316325	37.4	77521	-244	-636.6
-1127.5	-400	6.9	4312375	37.4	77765	-659	-642.2
-1215	-277.5	6.9	4313975	37.4	78424	-1012	-615.9
-1292.5	-265	6.9	4318100	37.4	79436	-958	-544.7
-1377.5	-382.5	6.9	4322250	37.5	80394	-810	-468.1
-1447.5	-352.5	6.9	4323750	37.5	81204	-393	-424.5
-1680	-565	7.0	4327575	37.5	81597	-1105	-425.3
-1787.5	-822.5	7.0	4331600	37.5	82702	-803	-343.2
-1832.5	-667.5	7.0	4336675	37.6	83505	0	-374
-1897.5	-797.5	7.0	4340675	37.6	83505	-382	-405.7
-2070	-592.5	7.0	4344500	37.7	83887	-300	-442.1
-2187.5	-805	7.0	4348850	37.7	84187	-396	-462.8
-2242.5	-1040	7.0	4352000	37.7	84583	-300	-483.3
-2372.5	-1300	7.0	4355650	37.8	84883	-192	-548.9
-2422.5	-1440	7.0	4358800	37.8	85075	-374	-577.4
-2792.5	-1525	7.0	4362150	37.8	85449	-401	-607.5
-2572.5	-1232.5	7.1	4365150	37.8	85850	-284	-730.7
-2492.5	-1117.5	7.1	4369550	37.9	86134	-1111	-729.5
-2500	-1325	7.1	4374375	37.9	87245	-317	-682.3
-2460	-1240	7.1	4378775	38.0	87562	-746	-687.3
-2247.5	-1545	7.1	4384425	38.0	88308	-507	-651.3
-2140	-1437.5	7.1	4388375	38.0	88815	-601	-623.1
-2080	-1347.5	7.2	4393425	38.1	89416	-956	-563
-1965	-1232.5	7.2	4397400	38.1	90372	-477	-497.4
-1947.5	-927.5	7.3	4402150	38.2	90849	-675	-449.7
-1567.5	-800	7.3	4401525	38.2	91524	-1633	-382.2
-1640	-965	7.3	4400575	38.1	93157	-272	-256.2
-1642.5	-870	7.3	4405700	38.2	93429	-639	-606.1
-1577.5	-787.5	7.4	4410800	38.2	94068	-367	-548.8
-1507.5	-792.5	7.4	4415950	38.3	94435	-386	-525.2
-1550	-835	7.4	4417075	38.3	94821	-225	-133.5
-1500	-532.5	7.4	4421650	38.3	95046	0	-119.6
-1495	-405	7.4	4426825	38.4	95046	-300	-141.6
-1497.5	-405	7.5	4432200	38.4	95346	0	-116
-1482.5	-452.5	7.5	4435475	38.4	95346	0	-129.2
-1492.5	-650	7.4	4442475	38.5	95346	-373	-163.1
-1502.5	-660	7.5	4445600	38.5	95719	-3771	-150.1

