

Letter A and Certification of Taxpayer ID Number

In order to better service your financial needs, our firm has engaged Electronic Transaction Clearing, Inc. (ETC), a member of the New York Stock Exchange and other major exchanges, as our correspondent broker-dealer clearing agent (the "Clearing Agent"), and accordingly we have opened an account under your name with our Clearing Agent on a correspondent broker basis pursuant to a written agreement between us and the Clearing Agent.

Under this agreement, the Clearing Agent will: provide cashiering services; monitor compliance of credit according to applicable rules, regulations and policies; prepare and mail trade notifications and periodic account statements; and provide for the dissemination of proxy, tender offer and other similar shareholders' materials. In addition, the Clearing Agent may provide, upon our specific instructions, order execution and/or certificate clearance. **However, the Clearing Agent will not be involved with or have responsibility for decisions regarding transactions in your account.** Moreover, under no circumstances will we be an agent of the clearing agent nor be in any partnership, association or joint venture relationship with the clearing agent. If the Clearing Agent pays interest on your qualified credit balances left on deposit in your account, for the purpose of pending investment or reinvestment, we may receive an administrative fee that would be in the form of an interest rate decrease of no more than one-half of one percent from the interest rate established for credit balances.

Since you continue to be a customer of our firm, the opening and approval of accounts and the entry of orders and instructions regarding the deposit or withdrawal of securities or money for your account must be handled by us. We will continue to be responsible for all activities in connection with your account, and inquiries or complaints regarding your account should be directed to us. You may access your account online, at any time, by visiting PHDTT.com. You acknowledge that in connection with this Agreement that we, or our Clearing Agent, may submit and collect nonpublic and public information to consumer and industry reporting agencies. Upon your written request, we will inform you if we have obtained information through these inquiries, and if so, we will provide you with the name and address of the consumer and industry reporting agency.

To acknowledge your understanding of these matters and to provide us with your required taxpayer certification and beneficial ownership election, please complete, sign, and return this document to us. Please note, in order to avoid backup withholding taxes imposed by the IRS, we must receive this document within 20 days. If you have any questions, please call us at your convenience.

ACCOUNT AGREEMENT, TAXPAYER CERTIFICATION, AND BENEFICIAL OWNERSHIP ELECTION

Under penalties of perjury, I certify that:

- (1) that the number supplied is my correct taxpayer identification number, and
- (2) I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding and **(IF YOU HAVE BEEN NOTIFIED BY THE IRS THAT YOU ARE SUBJECT TO BACKUP WITHHOLDING, YOU MUST CHECK THE BOX BELOW.)**
- (3) I am a U.S. Person (including a U.S. Resident Alien)

Rule 14b-1(c) of the Securities Exchange Act requires disclosure to requesting companies of the name, address and securities positions of customers who are beneficial owners of that company's securities, unless the customer objects. If you do not object to this disclosure, no action is required. If you do object, please check the box below.

- Do not disclose this information to requesting companies.
- Check this box only if you have been notified by the IRS that you are currently subject to backup withholding.

By signing below, you acknowledge that you have read and received a copy for your records of this agreement and the "Disclosure Statement-Facts about Your Borrowing Costs and Other Matters". You acknowledge your understanding and agreement that 1) your account is to be handled in the manner described in these agreements and 2) the "Disclosure Statement-Facts About Your Borrowing Costs and Other Matters" contains a Pre-dispute Arbitration clause in Paragraph 9, and 3) you understand that such Pre-dispute Arbitration clause will be binding on you upon signing below.

The Internal Revenue Service does not require your consent to any provision of this document other than the certifications required to avoid backup withholding.

- I agree to the "LETTER A AND CERTIFICATION OF TAXPAYER ID NUMBER (SUBSTITUTE W-9)" and electronically sign this agreement.

Electronic Consent

Please accept this as consent for the delivery of transaction confirmations and/or statements for my account to be effected via posting to the PHDTT website (<https://www.PHDTT.com>) rather than by regular postal service. I understand that by electing this option, I will have to log into the PHDTT website to view my confirmations and/or statements. I understand that this authorization provides that I will be receiving all transaction confirmations and/or statements relating to my account via this medium. I understand that the confirmations and/or account statements that will be posted to the PHDTT website will be substantially equivalent to a printed paper confirmation/statement that I would otherwise receive via regular postal service and that all material and required information will be reflected accordingly. I agree that the confirmation/statement will be deemed to be delivered to me by my accessibility to the PHDTT website whether or not I elect to open the communication. I agree that I will inform PHD Trading Technologies, LLC and ETC in writing in the event that I am unable to access the confirmations/statements due to computer systems problems. I agree to notify PHD Trading Technologies, LLC and ETC in the event I fail to receive an account statement or a transaction confirmation for a particular trade and that absent such notification, the confirmations and/or account statements will be deemed to have been delivered, whether actually received by me or not. I hereby agree to release, hold harmless, defend and indemnify PHD Trading Technologies, LLC and ETC and any of their respective directors, officers, agents, representatives and employees from any and all claims, losses, suits or damages which may in any manner arise out of my failure to receive any confirmation/statement, the transmission through the internet of customer information, any inaccuracies contained in such information, any subsequent use of such information (whether authorized or unauthorized by the intended or unintended recipient) and customer's access to or use of information related to this consent. If at any time I choose to change my delivery option for electronic reports, I can change my preferences on the "User Profile" page under the "Reports" menu on the <https://www.PHDTT.com> website. At that time, I can elect to change my request to receive physical hard copies via the regular mail service in lieu of viewing the reports only via the PHDTT website. Until such time as I affirmatively change my preferences, I will continue to receive delivery through the PHDTT website in lieu of regular mail service with respect to any confirmation/statement and all materials related to those documents.

I consent to the electronic delivery of the following items.

Statements

Trade Confirmations

If you wish to receive these documents by U.S. Mail, please uncheck the boxes.

Disclosures

DISCLOSURE STATEMENT-FACTS ABOUT YOUR BORROWING COSTS AND OTHER MATTERS

- 1. INTEREST POLICY:** Your account will be charged on any credit extended to or maintained for you by our Clearing Agent. The annual rate of interest will vary in relation to the size of your daily net debit balance and the prime rate in effect from time to time. The term "prime rate" means the current prime rate as correctly published in the Pacific Edition of the Wall Street Journal. The actual interest rate charged will not exceed the maximum rate of 4 1/4 % above the prime rate. Since the actual rates of interest charged are related to the prime rate, any changes in the prime rate may result in corresponding changes without notice in the actual rates charged. There may be an administrative fee charged to you, in the form of an interest rate increase of not more than six percent which will be determined by us and paid directly to us by the Clearing Agent. Please call your broker for the actual rates currently in effect.
- 2. METHOD OF COMPUTING INTEREST:** Your account will be charged interest using a 365 day per year factor on the daily net debit balance in your combined account types. Each day your settled money balances in each account type will be combined in determining your daily net debit balance. A daily net debit balance results whenever the total of combined debit balances exceeds the total of combined free credit balances. For purposes of this calculation, free credit balances exclude credit balances in short accounts, and the sales proceeds included in settled balances from transactions in cash accounts involving non-negotiable long positions, technical short positions and uncovered option positions. Short account credit balances are disregarded because the securities sold by you are not available for delivery and collection of the sales proceeds resulting from short sales. Sales proceeds included in settled balances from the other described sales transactions in cash accounts are disregarded because such credit items are not available to our Clearing Agent, until the related securities sold are rendered deliverable. Although the interest charge is calculated daily, it is generally posted once a month and compounded monthly. Interest charges are summarized on your monthly account statement. The summary uses a weighted average of the daily net debit balance (weighted average balance) and an imputed average interest rate for the period shown. The summary is determined by dividing the total amount of the interest charge (calculated on a daily basis using the actual daily net debit balance and the applicable interest rate) by the product of the weighted average balance multiplied by the number of calendar days the account had a daily net debit balance divided by 365 days. A copy of the daily calculation is available upon written request.
- 3. INTEREST CREDIT POLICY:** Your account will be paid interest by our Clearing Agent (unless not permitted by state law) on qualified free credit balances left on deposit for investment or reinvestment purposes only. Unless you advise otherwise, our Clearing Agent will continue to rely on this representation for credit interest. There may be an administrative fee charged to

you, in the form of an interest rate decrease of not more than one-half of one percent which will be determined by us and paid directly to us by the Clearing Agent. Monthly interest amounting to under \$6.00 will not be paid. The Clearing Agent's interest participation policy is non-discriminating, uniform and fair. A free credit balance represents funds payable to you upon demand (including checks deposited pending satisfactory clearance) which, although properly accounted for on the books and records, are not segregated and may be used in the conduct of the firm's business, including the financing of customers' securities purchased on margin (subject to the limitations of Section 240.15c3-3 of the Securities Exchange Act of 1934). You have a right to receive, in the course of normal business operations, upon demand, the delivery of: (a) any free credit balance to which you are entitled; (b) any fully paid security to which you are entitled; and (c) any security purchased on margin upon full payment of any indebtedness.

4. **PREPAYMENTS:** Prepaid amounts (i.e. instances where the proceeds from sales transactions are paid to you prior to each respective settlement date) are recorded as debit entries in your account on the date of each prepayment. Such prepayments are included in the money balances when calculating daily net debit balances.
5. **LIENS & ADDITIONAL COLLATERAL:** With respect to all your accounts (either individual or joint with others) carried or maintained by our Clearing Agent containing securities, or other property which has been deposited for any purpose, including safekeeping, our Clearing Agent as pledgee has a general lien on all such property for the discharge of all your obligations to the Clearing Agent, regardless of origin or the number of accounts you may have with such Clearing Agent. The Clearing Agent may require you to deposit additional collateral in accordance with the rules and regulations of various governmental and self-regulatory organizations having jurisdiction over the Clearing Agent. The Clearing Agent also may (but shall have no obligation to) require you to deposit additional collateral as the Clearing Agent, in its sole discretion, determines is needed as additional security for your obligations.
6. **MARKING-TO-THE-MARKET:** All short positions in your short account will be "marked to the market", which means that the money balance maintained in the short account will be adjusted from time to time to reflect any changes in the market value of the short securities. The opposite side of such adjustments will be reflected in your margin account balance, thus increasing or decreasing the money balance in the margin account, which is the amount used in computing your interest charge. For example, if you are short 1000 shares of XYZ against a credit balance in your short account of \$50,000, and XYZ falls to \$40 per share, the credit balance in your short account will be reduced by \$10,000 and a corresponding \$10,000 credit adjustment will be made in your margin account, thereby decreasing the amount subject to interest by \$10,000.
7. **DIVIDEND AND INTEREST PAYMENTS:** When you select the payment option, dividends and interest (including other similar distributions) generally will be distributed to you on a monthly basis.
8. **CLEARING AGENT'S PRIVACY POLICY:** The Clearing Agent collects "nonpublic personal information" from us. This information may be used by them in order to provide the services outlined in the "Letter of Understanding" you signed upon establishing your account with us. On our behalf, they may also submit and collect nonpublic and public information about you to or

from consumer and industry reporting agencies. This information may relate to transactions and other activities with us or with others. The Clearing Agent may disclose any information when they believe it necessary to conduct their business, or where disclosure is required by law. The Clearing Agent will not sell any information about you. The Clearing Agent maintains physical and electronic safeguards to protect your nonpublic and public personal information in its possession.

9. THIS AGREEMENT CONTAINS A PREDISPUTE ARBITRATION CLAUSE. BY SIGNING AN ARBITRATION AGREEMENT THE PARTIES AGREE AS FOLLOWS:

(A) ALL PARTIES TO THIS AGREEMENT ARE GIVING UP THE RIGHT TO SUE EACH OTHER IN COURT, INCLUDING THE RIGHT TO A TRIAL BY JURY, EXCEPT AS PROVIDED BY THE RULES OF THE ARBITRATION FORUM IN WHICH A CLAIM IS FILED.

(B) ARBITRATION AWARDS ARE GENERALLY FINAL AND BINDING; A PARTY'S ABILITY TO HAVE A COURT REVERSE OR MODIFY AN ARBITRATION AWARD IS VERY LIMITED.

(C) THE ABILITY OF THE PARTIES TO OBTAIN DOCUMENTS, WITNESS STATEMENTS AND OTHER DISCOVERY IS GENERALLY MORE LIMITED IN ARBITRATION THAN IN COURT PROCEEDINGS.

(D) THE ARBITRATORS DO NOT HAVE TO EXPLAIN THE REASON(S) FOR THEIR AWARD UNLESS, IN AN ELIGIBLE CASE, A JOINT REQUEST FOR AN EXPLAINED DECISION HAS BEEN SUBMITTED BY ALL PARTIES TO THE PANEL AT LEAST 20 DAYS PRIOR TO THE FIRST SCHEDULED HEARING DATE.

(E) THE PANEL OF ARBITRATORS WILL TYPICALLY INCLUDE A MINORITY OF ARBITRATORS WHO WERE OR ARE AFFILIATED WITH THE SECURITIES INDUSTRY.

(F) THE RULES OF SOME ARBITRATION FORUMS MAY IMPOSE TIME LIMITS FOR BRINGING A CLAIM IN ARBITRATION. IN SOME CASES, A CLAIM THAT IS INELIGIBLE FOR ARBITRATION MAY BE BROUGHT IN COURT.

(G) THE RULES OF THE ARBITRATION FORUM IN WHICH THE CLAIM IS FILED, AND ANY AMENDMENTS THERETO, SHALL BE INCORPORATED INTO THIS AGREEMENT.

BY SIGNING THE "ACCOUNT AGREEMENT, TAXPAYER CERTIFICATION AND BENEFICIAL OWNERSHIP ELECTION" FORM (THE "AGREEMENT") YOU AGREE, AND BY ESTABLISHING AN ACCOUNT FOR YOU, WE AND OUR CLEARING FIRM AGREE THAT ALL CONTROVERSIES WHICH MAY ARISE BETWEEN YOU AND OUR FIRM AND/OR OUR CLEARING AGENT (OR ANY OF OUR/THEIR OFFICERS, EMPLOYEES OR AGENTS OR ASSIGNEES) CONCERNING ANY TRANSACTION OR THE CONSTRUCTION, PERFORMANCE OR BREACH OF THIS OR ANY OTHER AGREEMENT BETWEEN YOU AND OUR FIRM AND/OR OUR CLEARING AGENT, SHALL BE DETERMINED BY ARBITRATION IN ACCORDANCE WITH THE RULES, THEN IN EFFECT, OF THE FINANCIAL INDUSTRY REGULATORY AUTHORITY, THE NEW YORK STOCK EXCHANGE OR ANY OTHER EXCHANGE OR FORUM OF WHICH OUR FIRM AND/OR OUR CLEARING AGENT IS A MEMBER, AS YOU MAY ELECT. IF YOU DO NOT MAKE SUCH ELECTION BY REGISTERED MAIL SENT TO OUR FIRM AT ITS MAIN OFFICE WITHIN TEN (10) DAYS AFTER THE RECEIPT OF NOTIFICATION FROM OUR FIRM AND/OR OUR CLEARING AGENT REQUESTING SUCH AN ELECTION, THEN YOU AUTHORIZE US TO MAKE SUCH ELECTION ON YOUR BEHALF.

FURTHERMORE, YOU AGREE AND ACKNOWLEDGE, AND OUR FIRM AND OUR CLEARING AGENT AGREE AND ACKNOWLEDGE THAT NO PERSON SHALL BRING A PUTATIVE OR CERTIFIED CLASS ACTION TO ARBITRATION, NOR SEEK TO ENFORCE ANY PREDISPUTE ARBITRATION AGREEMENT AGAINST ANY PERSON WHO HAS INITIATED IN COURT A PUTATIVE CLASS ACTION; OR WHO IS A MEMBER OF A PUTATIVE CLASS ACTION WHO HAS NOT OPTED OUT OF THE CLASS WITH RESPECT TO ANY CLAIMS ENCOMPASSED BY THE PUTATIVE CLASS ACTION UNTIL: (I) THE CLASS CERTIFICATION IS DENIED; OR (II) THE CLASS IS DECERTIFIED; OR (III) THE CUSTOMER IS EXCLUDED FROM THE CLASS BY THE COURT. SUCH FORBEARANCE TO ENFORCE AN AGREEMENT TO ARBITRATE SHALL NOT CONSTITUTE A WAIVER OF ANY RIGHTS UNDER THIS AGREEMENT EXCEPT TO THE EXTENT STATED HEREIN.

MARGIN AGREEMENT

Relative to maintaining a margin account with you through the facilities of your correspondent clearing agent (the "Clearing Agent") whereupon the Clearing Agent may extend credit to the undersigned, the undersigned understands and concurs with the provisions of this Agreement.

1. **CORRESPONDENT ARRANGEMENT:** Under a correspondent arrangement, the undersigned's margin account is to be carried, cleared and maintained by your Clearing Agent pursuant to a written agreement between you and the Clearing Agent, which provides, in part, that the undersigned will continue to be your customer and not the customer of the Clearing Agent. Credit may be extended by the Clearing Agent to the undersigned in accordance with this Agreement.
2. **DISCLOSURE STATEMENT:** The undersigned acknowledges receipt of the current Disclosure Statement concurrently furnished with this Agreement. This Agreement is expressly made in reference to the disclosures set forth in such statement.
3. **APPLICABLE RULES AND REGULATIONS:** All transactions under this Agreement shall be subject to the constitution, rules, regulations, customs, usages, rulings and interpretations of the exchange or market, and its clearing and depository facilities, where executed, to all governmental acts and statutes and applicable rules and regulations made thereunder, and to all applicable judicial and administrative decisions or interpretations. Whenever any statute shall be enacted, or any rule or regulation shall be prescribed or promulgated by any exchange or association of which you or your Clearing Agent is a member, the Securities and Exchange Commission, the Commodities Futures Trading Commission or the Board of Governors of the Federal Reserve System, or whenever any final decision or interpretation shall be issued by any court or administrative body of competent jurisdiction which shall affect in a manner or be inconsistent with any of the provisions of this Agreement, those provisions shall be deemed modified or superseded, as the case may be, by such act, statute, rule, regulation, decision or interpretation. All other provisions of this Agreement and the provisions as so modified or as so superseded shall in all respects continue and be in full force and effect.
4. **DEFINITION:** For purposes of this Agreement "securities or other property," as used herein shall include, but not be limited to monies, securities, financial instruments and commodities of every

kind and nature, and all contracts and options relating thereto, whether for present or future delivery. The “undersigned” shall mean the customer or joint customer, as applicable.

5. LIEN: All securities or other property which you, your Clearing Agent or your other agents or agents of your Clearing Agent may at any time be carrying or maintaining for the undersigned or which may at any time be in you or your Clearing Agent’s possession or control for any purpose, including safekeeping, shall be subject to a first and prior security interest and lien for the discharge of the undersigned’s obligations to Clearing Agent (and, as determined by Clearing Agent, agents of Clearing Agent and ourselves) and held as security for the payment of any liability of the undersigned to your Clearing Agent irrespective of whether advances have been made in connection with such securities or other property, and irrespective of the number of accounts the undersigned may have with you or your Clearing Agent.
6. PLEDGES OF SECURITIES OR OTHER PROPERTY: All securities or other property, presently or in the future, carried or maintained by the Clearing Agent for the undersigned (either individually, or jointly with others), may be held in the Clearing Agent’s name or the name of any nominee and may from time to time and without notice to the undersigned, be carried in general loans and may be pledged, re-pledged, hypothecated, or re-hypothecated, or loaned either to the Clearing Agent or to others, separately or in common with other securities or other property, for any amount due in the accounts of the undersigned or for any greater amount, and without retaining possession or control for delivery a like amount of similar securities or other property. After receipt of demand for delivery and the undersigned becoming entitled to delivery, the Clearing Agent shall have a reasonable time to ship securities, or other property from Los Angeles, California, or from any other place where such may be located, to the place where such are to be delivered to the undersigned.
7. MAINTENANCE MARGIN REQUIREMENTS: The undersigned shall at all times maintain acceptable collateral in the form of securities or other property in sufficient amounts as may be required by the Clearing Agent from time to time for the Clearing Agent’s protection or to meet the requirements of various regulatory bodies (“maintenance margin”). The amount of maintenance margin required by the Clearing Agent may vary depending on the type of collateral (stocks, corporate bonds, municipal and government bonds, etc.) in the account and/or on the quantity of such collateral in terms of high concentration factors and/or illiquid trading markets for such collateral. The undersigned understands that although the Clearing Agent does not limit the factors which may require additional collateral, factors such as market fluctuations, unusual or volatile market conditions, high concentrations, precipitous market declines, illiquid trading markets, quality of collateral or the overall credit standing of the account shall be considered. Notwithstanding the foregoing, additional collateral may be required in the Clearing Agent’s discretion. The undersigned further acknowledges and agrees that in the event a maintenance margin deficiency exists the Clearing Agent may liquidate (but the Clearing Agent shall not be required to do so) all or any part of the collateral in the account. The Clearing Agent may liquidate the collateral as the Clearing Agent, in its discretion, shall deem appropriate in view of the prevailing market conditions at such time. Such action by the Clearing Agent to liquidate all or any part of the collateral, whether in a single transaction or in a series of transactions of the same or of different collateral, could result in a deficit for which the undersigned shall remain liable to the Clearing Agent.

THE UNDERSIGNED CLEARLY UNDERSTANDS THAT, NOTWITHSTANDING ANY GENERAL POLICY TO GIVE NOTICE OF A MAINTENANCE MARGIN DEFICIENCY, THERE IS NO OBLIGATION TO REQUEST ADDITIONAL MARGIN IN THE EVENT THE UNDERSIGNED'S ACCOUNT FALLS BELOW THE MINIMUM MARGIN REQUIREMENTS. MORE IMPORTANTLY, THERE MAY WELL BE CIRCUMSTANCES WHERE THE CLEARING AGENT MAY LIQUIDATE SECURITIES AND OTHER PROPERTY IN THE ACCOUNT OF THE UNDERSIGNED WITHOUT NOTICE TO THE UNDERSIGNED IN ORDER TO SATISFY THE CLEARING AGENT'S MAINTENANCE REQUIREMENTS.

8. **LIQUIDATION: NOTWITHSTANDING OTHER PROVISIONS, THE CLEARING AGENT IS AUTHORIZED AT ITS DISCRETION TO CLOSE THE ACCOUNT IN WHOLE OR IN PART WHENEVER THE CLEARING AGENT CONSIDERS IT NECESSARY FOR ITS PROTECTION. IN ADDITION, THE OCCURRENCE OF EITHER OF THE FOLLOWING EVENTS SHALL BE CONSIDERED A DEFAULT BY THE UNDERSIGNED ENTITLING THE CLEARING AGENT, IN ITS DISCRETION, TO CLOSE THE ACCOUNT: (A) ONE OR MORE OF THE UNDERSIGNED BE JUDICIALLY DECLARED INCOMPETENT OR DIES, OR A PETITION IN BANKRUPTCY OR FOR THE APPOINTMENT OF A RECEIVER BY OR AGAINST ONE OR MORE OF THE UNDERSIGNED IS FILED, OR AN ATTACHMENT IS LEVIED AGAINST ONE OR MORE OF THE UNDERSIGNED'S ACCOUNTS; OR (B) THE COLLATERAL DEPOSITED TO PROTECT THE UNDERSIGNED'S ACCOUNT IS DETERMINED BY THE CLEARING AGENT IN ITS DISCRETION, AND REGARDLESS OF MARKET QUOTATIONS, TO BE INADEQUATE TO PROPERLY SECURE THE ACCOUNT. IN CONNECTION THEREWITH, THE CLEARING AGENT MAY SELL ANY OR ALL OF THE SECURITIES OR OTHER PROPERTY WHICH MAY BE IN ITS POSSESSION OR CONTROL, OR WHICH MAY BE CARRIED OR MAINTAINED BY THE CLEARING AGENT OR ITS AGENTS FOR THE UNDERSIGNED, OR THE CLEARING AGENT MAY "BUY IN" ANY SECURITIES OR OTHER PROPERTY OF WHICH THE ACCOUNT OR ACCOUNTS OF THE UNDERSIGNED MAY BE SHORT, OR CANCEL ANY OUTSTANDING ORDERS SO AS TO TERMINATE ANY COMMITMENT MADE IN BEHALF OF THE UNDERSIGNED. SUCH SALE, PURCHASE OR CANCELLATION MAY BE MADE ACCORDING TO THE CLEARING AGENT'S JUDGEMENT AND BE MADE, AT ITS DISCRETION, ON ANY EXCHANGE OR OTHER MARKET WHERE SUCH BUSINESS IS CUSTOMARILY TRANSACTED, OR AT PUBLIC AUCTION OR AT PRIVATE SALE, WITHOUT ADVERTISING THE SAME AND WITHOUT NOTICE TO THE UNDERSIGNED OR TO THE PERSONAL REPRESENTATIVES OF THE UNDERSIGNED, AND WITHOUT PRIOR TENDER, DEMAND OR CALL OF ANY KIND UPON THE UNDERSIGNED OR UPON THE PERSONAL REPRESENTATIVES OF THE UNDERSIGNED. THE CLEARING AGENT MAY (BUT SHALL NOT BE OBLIGATED TO) PURCHASE THE WHOLE OR ANY PART THEREOF FREE FROM ANY RIGHT OF REDEMPTION OR THE CLEARING AGENT MAY TRANSFER THE WHOLE OR ANY PART THEREOF OR THE RIGHTS THERETO TO THE UNDERSIGNED; AND, IN ANY SUCH EVENT, THE UNDERSIGNED SHALL REMAIN LIABLE FOR ANY DEFICIENCY. IT IS UNDERSTOOD THAT A PRIOR TENDER, DEMAND, CALL OF ANY KIND, OR PRIOR NOTICE FROM THE CLEARING AGENT OF THE TIME AND PLACE OF SUCH SALE OR PURCHASE SHALL NOT BE CONSIDERED A WAIVER OF THE CLEARING AGENT'S RIGHT TO SELL OR BUY ANY SECURITIES OR OTHER PROPERTY IN ITS POSSESSION OR CONTROL OR OWED THE CLEARING AGENT BY THE UNDERSIGNED, AT ANY TIME WITHOUT PRIOR TENDER, DEMAND, CALL OR NOTICE.**
9. **PAYMENT OF INDEBTEDNESS UPON DEMAND: The undersigned undertakes upon demand, to discharge the undersigned's obligations to the Clearing Agent, or, in the event of a closing of any**

account of the undersigned in whole or in part by the Clearing Agent or the undersigned, to pay the deficiency, if any, and the undersigned agrees to reimburse the Clearing Agent for any costs or expenses incurred in collecting such amounts, including reasonable attorney's fees.

10. EXECUTION OF ORDERS: All orders given by the undersigned for the purchase or sale of securities or other property, which may be traded on more than one exchange or market, may be executed on any exchange or market.
11. RIGHT TO TRANSFER MONIES AND SECURITIES: All transactions for or in connection with the undersigned's account shall be deemed to be included in a single account notwithstanding the fact that such transactions may be segregated on the Clearing Agent's records into separate account, either severally or jointly with others. At any time and from time to time, the Clearing Agent may without notice to the undersigned apply and transfer any or all monies, securities, and/or other property of the undersigned interchangeably between any accounts of the undersigned other than from or to a related commodity account.
12. INTEREST CHARGES: Debit balances in the account of the undersigned shall be charged with interest in accordance with the Clearing Agent's usual custom, and as permitted by the laws of the State of California, and with such other charges as may be made to cover the Clearing Agent's facilities and extra services. It is understood and agreed that the interest charge made to the undersigned's account at the close of one charge period will be compounded, that is, added to the opening balance for the next charge period unless paid, thereby becoming part of the principal amount and bearing like interest. There may be an administrative fee charged to the undersigned's account in the form of an interest rate increase of not more than six percent which will be determined by you and paid directly to you by the Clearing Agent. It is further understood and agreed that the rate of interest charged may be changed by the Clearing Agent from time to time, and without notice, based on money market conditions and other factors, and that the procedures employed by the Clearing Agent in charging and computing interest are as set forth in the current Disclosure Statement which has been delivered to the undersigned, or in any subsequent Disclosure Statement which the Clearing Agent may send the undersigned.

Short selling may involve the Clearing Agent borrowing the securities at a negative interest rate and certain minimums on low priced securities. The negative interest rate can vary daily and you agree to these charges without notification.

13. REPRESENTATION AS TO SECURITIES TRANSACTIONS: When entering a sell order, the undersigned shall designate it as either a "long sale" or "short sale" and hereby authorizes that all such sell orders be properly identified on the records as either long sales or short sales. Any sell order which the undersigned shall designate as being a long sale shall be for securities then owned by the undersigned, and if such securities are not presently held by the Clearing Agent or its agents in the account of the undersigned, the placing of such sell order shall constitute a representation that the undersigned shall deliver such securities forthwith. Further, in cases involving the sale of securities or other property by the undersigned, which results in the Clearing Agent's inability to deliver such to the purchaser or purchaser's agent due to failure by the undersigned to effect the delivery of such sold securities or other property in good deliverable form subject to no transfer restrictions, the undersigned authorizes the Clearing Agent, at its discretion, to borrow or to "buy in" such securities or other property in order to

effect delivery. The undersigned agrees to be fully responsible for all losses and added expenses which the Clearing Agent may sustain by reason of its inability to borrow or as a result of buying in such securities or other losses and expenses which the Clearing Agent may sustain by reason of its inability to borrow or as a result of buying in such securities or other property. All securities transactions executed in behalf of the undersigned shall be on an agency basis, unless otherwise disclosed by formal trade notification or other writing that a specific transaction shall have been on a dealer basis. Transaction reports concerning the execution of orders and account statements of the undersigned shall be conclusive if not objected to in writing promptly.

14. PRESUMPTION OF RECEIPT OF COMMUNICATIONS: Communications may be sent to the undersigned at the address indicated in the Clearing Agent's records from time to time, and all communications so sent, whether by mail, telegram, messenger or otherwise shall be deemed given to the undersigned personally, whether actually received or not.
15. LAWS OF THE STATE OF CALIFORNIA: The provisions of this Agreement shall in all respects be construed according to, and the rights and liabilities of the parties hereto shall in all respects be governed by, the laws of the State of California.
16. SEPARABILITY: If any provision of this Agreement is determined to be unenforceable, such determination shall not affect the validity of the remaining provisions of this Agreement
17. OBLIGATIONS CONTINUOUS: The provisions of this Agreement shall be continuous and cover individually and collectively all accounts maintained by the Clearing Agent, which the undersigned may open or reopen and shall inure to the benefit of the Clearing Agent, its successors and assignees and shall be binding upon the undersigned and/or the estate, heirs, executors, personal representatives, administrators and assignees of the undersigned.
18. REPRESENTATIONS AS TO CAPACITY TO ENTER INTO AGREEMENT: The undersigned, if an individual, represents that the undersigned is of legal age, and, unless otherwise specifically disclosed in writing herewith, that the undersigned is not an employee of any exchange, or of any corporation of which any exchange owns a majority of the capital stock, or of a member of any exchange or of a member firm or member corporation registered on any exchange, or of a bank, trust company, insurance company or of any corporation, firm or individual engaged in the business of dealing, either as broker or as principal, in securities, bills of exchange, acceptances or other forms of commercial paper. If the account holder is a corporation, partnership, trust or other entity, the account holder represents that its governing instruments permit this Agreement, that this Agreement has been duly authorized by all applicable persons and that the account holder signatory is authorized to bind the account holder. The undersigned further represents that no one except the undersigned has an interest in the account or accounts of the undersigned maintained by the Clearing Agent, and that the undersigned shall cause notification to the Clearing Agent in writing of any change.
19. JOINT AND SEVERAL LIABILITY: If the undersigned consists of more than one individual, the obligations under this Agreement shall be joint and several.

20. **DISCLOSURE OF FINANCIAL INFORMATION:** The undersigned understands in connection with this Agreement an investigation may be made whereby information is obtained relative to the undersigned's character, general reputation, and credit worthiness, and that the undersigned has the right to make a written request within a reasonable period of time for a complete and accurate disclosure of additional information concerning the nature and scope of this investigation.
21. **EXTRAORDINARY EVENTS:** The Clearing Agent shall not be liable for losses caused directly or indirectly by government restrictions, exchange or market rulings, suspension of trading, war, strikes or other conditions beyond the Clearing Agent's control.
22. **CONTROL AND RESTRICTED SECURITIES:** In connection with any securities subject to resale limitations under Rule 144 or Rule 145 of the Securities Act of 1933, as amended (the "Act"), held by the Clearing Agent or its agents on behalf of the undersigned, the undersigned grants unto the Clearing Agent irrevocable power to execute stock powers, and to execute and file Form 144 and other applicable documents as required by the Act on behalf of the undersigned.
23. **MODIFICATIONS AND AMENDMENTS TO AGREEMENT:** Except as herein otherwise expressly provided, no provision of this Agreement may be waived, altered, modified or amended unless such waiver, alteration, modification or amendment is in writing and signed by a duly authorized officer as designated by the Clearing Agent.
24. **HEADINGS:** The heading of each provision hereof is for descriptive purposes only and shall not be deemed to modify or qualify any of the rights or obligations set forth in each provision.
25. **ARBITRATION: THIS AGREEMENT CONTAINS A PREDISPUTE ARBITRATION CLAUSE. BY SIGNING AN ARBITRATION AGREEMENT THE PARTIES AGREE AS FOLLOWS:**
- (A) ALL PARTIES TO THIS AGREEMENT ARE GIVING UP THE RIGHT TO SUE EACH OTHER IN COURT, INCLUDING THE RIGHT TO A TRIAL BY JURY, EXCEPT AS PROVIDED BY THE RULES OF THE ARBITRATION FORUM IN WHICH A CLAIM IS FILED.**
- (B) ARBITRATION AWARDS ARE GENERALLY FINAL AND BINDING; A PARTY'S ABILITY TO HAVE A COURT REVERSE OR MODIFY AN ARBITRATION AWARD IS VERY LIMITED.**
- (C) THE ABILITY OF THE PARTIES TO OBTAIN DOCUMENTS, WITNESS STATEMENTS AND OTHER DISCOVERY IS GENERALLY MORE LIMITED IN ARBITRATION THAN INCOURT PROCEEDINGS.**
- (D) THE ARBITRATORS DO NOT HAVE TO EXPLAIN THE REASON(S) FOR THEIR AWARD UNLESS, IN AN ELIGIBLE CASE, A JOINT REQUEST FOR AN EXPLAINED DECISION HAS BEEN SUBMITTED BY ALL PARTIES TO THE PANEL AT LEAST 20 DAYS PRIOR TO THE FIRST SCHEDULED HEARING DATE**
- (E) THE PANEL OF ARBITRATORS WILL TYPICALLY INCLUDE A MINORITY OF ARBITRATORS WHO WERE OR ARE AFFILIATED WITH THE SECURITIES INDUSTRY.**

(F) THE RULES OF SOME ARBITRATION FORUMS MAY IMPOSE TIME LIMITS FOR BRINGING A CLAIM IN ARBITRATION. IN SOME CASES, A CLAIM THAT IS INELIGIBLE FOR ARBITRATION MAY BE BROUGHT IN COURT.

(G) THE RULES OF THE ARBITRATION FORUM IN WHICH THE CLAIM IS FILED, AND ANY AMENDMENTS THERETO, SHALL BE INCORPORATED INTO THIS AGREEMENT.

BY SIGNING THE "ACCOUNT AGREEMENT, TAXPAYER CERTIFICATION AND BENEFICIAL OWNERSHIP ELECTION" FORM (THE "AGREEMENT") YOU AGREE, AND BY ESTABLISHING AN ACCOUNT FOR YOU, WE AND OUR CLEARING FIRM AGREE THAT ALL CONTROVERSIES WHICH MAY ARISE BETWEEN YOU AND OUR FIRM AND/OR OUR CLEARING AGENT (OR ANY OF OUR/THEIR OFFICERS, EMPLOYEES OR AGENTS OR ASSIGNEES) CONCERNING ANY TRANSACTION OR THE CONSTRUCTION, PERFORMANCE OR BREACH OF THIS OR ANY OTHER AGREEMENT BETWEEN YOU AND OUR FIRM AND/OR OUR CLEARING AGENT, SHALL BE DETERMINED BY ARBITRATION IN ACCORDANCE WITH THE RULES, THEN IN EFFECT, OF THE FINANCIAL INDUSTRY REGULATORY AUTHORITY, THE NEW YORK STOCK EXCHANGE OR ANY OTHER EXCHANGE OR FORUM OF WHICH OUR FIRM AND/OR OUR CLEARING AGENT IS A MEMBER, AS YOU MAY ELECT. IF YOU DO NOT MAKE SUCH ELECTION BY REGISTERED MAIL SENT TO OUR FIRM AT ITS MAIN OFFICE WITHIN TEN (10) DAYS AFTER THE RECEIPT OF NOTIFICATION FROM OUR FIRM AND/OR OUR CLEARING AGENT REQUESTING SUCH AN ELECTION, THEN YOU AUTHORIZE US TO MAKE SUCH ELECTION ON YOUR BEHALF.

FURTHERMORE, YOU AGREE AND ACKNOWLEDGE, AND OUR FIRM AND OUR CLEARING AGENT AGREE AND ACKNOWLEDGE THAT NO PERSON SHALL BRING A PUTATIVE OR CERTIFIED CLASS ACTION TO ARBITRATION, NOR SEEK TO ENFORCE ANY PREDISPUTE ARBITRATION AGREEMENT AGAINST ANY PERSON WHO HAS INITIATED IN COURT A PUTATIVE CLASS ACTION; OR WHO IS A MEMBER OF A PUTATIVE CLASS ACTION WHO HAS NOT OPTED OUT OF THE CLASS WITH RESPECT TO ANY CLAIMS ENCOMPASSED BY THE PUTATIVE CLASS ACTION UNTIL: (I) THE CLASS CERTIFICATION IS DENIED; OR (II) THE CLASS IS DECERTIFIED; OR (III) THE CUSTOMER IS EXCLUDED FROM THE CLASS BY THE COURT. SUCH FORBEARANCE TO ENFORCE AN AGREEMENT TO ARBITRATE SHALL NOT CONSTITUTE A WAIVER OF ANY RIGHTS UNDER THIS AGREEMENT EXCEPT TO THE EXTENT STATED HEREIN.

26. **LOAN CONSENT: THE CLEARING AGENT IS HEREBY AUTHORIZED TO LEND, EITHER SEPARATELY OR WITH OTHER SECURITIES, TO EITHER THE CLEARING AGENT AS BROKERS OR TO OTHERS, SECURITIES HELD BY THE CLEARING AGENT ON MARGIN ON BEHALF OF THE UNDERSIGNED. IN CERTAIN CIRCUMSTANCES, SUCH LOANS MAY LIMIT, IN WHOLE OR IN PART, YOUR ABILITY TO EXERCISE VOTING AND OTHER RIGHTS OF OWNERSHIP WITH RESPECT TO THE LOANED OR PLEDGED SECURITIES. DIVIDENDS PAID ON THESE LOANED OR PLEDGED SECURITIES MAY BE PAID IN THE FORM OF "IN LIEU OF DIVIDENDS" THAT MAY NOT QUALIFY AS DIVIDEND INCOME FOR TAX PURPOSES.**
- **THE UNDERSIGNED ACKNOWLEDGES THAT THIS AGREEMENT ALSO CONTAINS A PREDISPUTE ARBITRATION PROVISION UNDER PARAGRAPH 25 ABOVE, AND A LOAN CONSENT AGREEMENT PROVISION UNDER PARAGRAPH 26 ABOVE.**

- **THE UNDERSIGNED FURTHER ACKNOWLEDGES THAT A COPY OF THIS AGREEMENT AND THE “DISCLOSURE STATEMENT – FACTS ABOUT YOUR BORROWING COSTS AND OTHER MATTERS” HAS BEEN FURNISHED TO THE UNDERSIGNED.**
- **I HAVE RECEIVED A SEPARATE MARGIN RISKS DISCLOSURE STATEMENT CONCURRENT WITH THIS AGREEMENT.**

AUTHORIZATION TO EARN INTEREST ON FUNDS AWAITING INVESTMENT

This is to confirm my intention to reinvest cash credit balances held by you in my name, and I further confirm that this cash credit balance is being maintained with you solely for the purpose of reinvestment. I understand that cash balances of up to \$100,000 are protected by the Securities Investor Protection Corporation (SIPC), but that SIPC coverage is not available for funds maintained solely for the purpose of earning interest.

CUSTOMER AGREEMENT

This Trading Agreement contains important information. Please read this information carefully and retain a copy for future reference.

In consideration for PHD Trading Technologies, LLC ("PHDTT" or the "Firm") opening and maintaining one or more Accounts for me, I agree to the terms and conditions set forth in this Customer Agreement ("Agreement"), as may be amended from time to time.

INTRODUCTION

I promise to read this Agreement carefully and retain it for future reference. I understand that the terms and conditions of this Agreement govern all aspects of my relationship with PHDTT, including all transactions between PHDTT and me and all products and services now or in the future offered through PHDTT, beginning on the date my Account is opened.

BROKERAGE SERVICES

I ACKNOWLEDGE THAT I ALONE AM RESPONSIBLE FOR DETERMINING THE SUITABILITY OF MY INVESTMENT CHOICES IN LIGHT OF MY PARTICULAR CIRCUMSTANCES. I UNDERSTAND THAT PHDTT ASSUMES NO RESPONSIBILITY FOR SUCH DETERMINATION. As a self-directed investor, I assume full responsibility for each and every transaction in or for my Account and for my own investment strategies and decisions. I understand and agree that PHDTT and its affiliates, and their officers, directors, employees and agents will have no liability whatsoever for the results of my investment strategies, transactions and decisions.

NO ADVICE OR RECOMMENDATIONS

PHDTT does not and will not provide me with any legal, tax, estate planning or accounting advice or advice regarding the suitability, profitability or appropriateness for me of any security, investment, financial product, investment strategy or other matter. I acknowledge that none of the information that may be provided by PHDTT in connection with the Account is intended as tax or legal advice. Although PHDTT may provide access to information about how to invest and what to buy, no third-party recommendations are developed or endorsed by PHDTT, and any information in materials prepared by

PHDTT is not to be construed as a recommendation or advice designed to meet the particular objectives or situation of any investor.

I acknowledge and agree that I have unilaterally solicited the privilege of trading securities as a customer of PHDTT and that neither the Firm, its officers, directors, management, employees, nor affiliates, have solicited, directly or indirectly, my opening of an account to trade.

I acknowledge that PHDTT employees are not authorized to give any such advice, and I will neither solicit nor rely on any investment advice from any PHDTT employee. Any information provided through the Service will not be used or considered by me as a recommendation that I buy, sell or hold a particular security or pursue any particular investment strategy. I also acknowledge that PHDTT neither assumes responsibility for nor guarantees the accuracy, currency, completeness or usefulness of information, commentary, recommendations, advice, investment ideas or other materials that may be accessed by me through the Service. This includes bulletin boards, message boards, chat services or other online conference or telecast by third party providers through PHDTT. If I choose to rely on such information, I do so solely at my own risk. I understand that the research, analysis, news or other information made available through the Service is not personalized or in any way tailored to reflect my personal financial circumstances or investment objectives and the securities and investment strategies discussed may not be suitable for me. Such information is not an offer, or a solicitation of an offer, to buy or sell securities on behalf of PHDTT.

I acknowledge that orders I place may be sent directly to a market center without being viewed by an individual PHDTT representative. I agree to accept full responsibility for all orders I place and to release PHDTT and its affiliates, and their officers, directors, employees and agents from any liability for executing the orders I place in connection with the Account. I acknowledge that all orders are at my sole risk.

ORDER HANDLING AND EXECUTION

In executing any order that I submit, PHDTT may direct such an order, based on my instructions, to one of various market centers, including NASDAQ, an exchange, or an electronic communications network with which PHDTT maintains a relationship. There is no guarantee that any order will be accepted or processed by any particular market center that matches orders for execution, and PHDTT is not responsible for any losses caused by the failure of any such market center to receive, accept, or execute an order that I submit. Orders may be transmitted through one or more executing broker-dealers that are affiliated with PHDTT, before being executed or submitted for execution. PHDTT retains the right to change its processes and procedures pertaining to order execution, and the entities with which it maintains relationships for these purposes, without prior notice to me. Certain orders, at PHDTT's sole discretion, may be subject to manual review and entry, which may cause delays in the execution of my orders and may cause my orders to be executed at prices that are significantly different from the price quotes I obtained when I entered my order.

RESTRICTIONS ON ACCOUNT SERVICES

PHDTT may place trading, disbursement, service or other restrictions on my Account for various reasons, including court order, tax levy or garnishment, request of a government agency or law enforcement authority, a Debit Balance or margin deficiency in my Account, or in the event of a dispute between joint Account holders. I understand that PHDTT may be required to liquidate or close out Securities and/or Other Property in my Account to satisfy any such court order, garnishment, tax levy or other legal obligation. PHDTT will not be held liable for any losses that arise out of or relate to any such transaction and I agree to indemnify and hold PHDTT and its affiliates and their officers, directors, employees and agents harmless from and against any Losses they may incur in taking such actions.

DIVIDENDS, INTEREST AND SUBSCRIPTION RIGHTS

PHDTT or Clearing Broker will receive periodic payments, such as dividends and interests, on my behalf,

and will credit my Account on or shortly after the payable dates. Foreign dividends and interest will be credited to my Account on or shortly after the funds are converted to U.S. currency.

IMPARTIAL LOTTERY ALLOCATION SYSTEM

When PHDTT or Clearing Broker holds on my behalf, bonds or preferred stocks in street or bearer form which are callable, I agree to participate in an impartial lottery allocation system. I also understand that when the call is favorable, no allocation will be made to any account in which PHDTT or Clearing Broker, its affiliates, directors, officers or employees, have a financial interest until all other customer positions in such securities are satisfied on an impartial lottery basis.

TRADING SYSTEM AND USE OF ELECTRONIC SERVICES

I understand that PHDTT does not guarantee that all or any of the access routes will be available to me all the time. PHDTT reserves the right to suspend access to the Service without prior notice during scheduled or unscheduled system repairs or upgrades.

CUSTOMER RESPONSIBILITY

I understand that I am responsible for all acts and omissions relating to the use of the Service, including all orders entered through the Service using my User ID and Passwords. I agree that it is my responsibility to maintain the confidentiality of my User ID and Passwords and to change my Passwords regularly and to keep them confidential. I agree to notify PHDTT immediately if: (i) an order is placed through the Service and I do not receive an order number; (ii) an order is placed through the Service and I do not receive an accurate acknowledgment of the order or of its execution; (iii) I receive acknowledgement of an execution of an order which I believe I did not place; (iv) any inaccurate or conflicting report concerning your account balances, securities positions or transaction history; or (v) I become aware of any unauthorized use of my User ID or Passwords.

If I fail to notify PHDTT as soon as practicable when any of the above conditions occur, neither PHDTT nor any of its affiliates will be liable to me or to any other person for any claim with respect to the handling, mishandling or loss of any order.

MARKET DATA

I understand that neither PHDTT nor any participating Data Provider guarantees or makes any warranty of any kind, expressed or implied, regarding the timeliness, sequence, accuracy or completeness of Market Data. I agree that PHDTT is not liable for any Losses (including lost opportunity or profits) arising out of or relating to: (i) any inaccuracy, defect or omission of the data; (ii) any error or delay in the transmission of such data; or (iii) interruption in any such data due to any cause beyond the control of PHDTT. I also understand that each participating national securities exchange or association asserts a proprietary interest in all of the Market Data it furnishes to the parties that disseminate the data. I will use Market Data (including Real Time Quotes) only for my individual non-business use. I will not provide Market Data to any person or entity. I understand that the Data Providers may enforce the terms of this Agreement directly against me.

ELECTRONIC SERVICES

"Electronic Services" mean any and all of PHDTT 's computer, electronic or telephonic services or systems, including, but not limited to, services and information accessible through PHDTT 's proprietary software, its externally accessible computers and networks, any Web site maintained by PHDTT , and any other computer, electronic or telephonic securities trading services or information system provided to customers whether established directly by PHDTT or through other service providers.

I agree that Electronic Services are provided to me on an "AS IS" and "AS AVAILABLE" basis. I further agree that PHDTT and its affiliates, and their officers, directors, partners, employees and agents will

have no liability, whether direct or indirect, consequential, punitive or exemplary, to me or to third parties, and no responsibility whatsoever for:

1. Any losses resulting from the correctness, quality, accuracy, timeliness, sequence, pricing, reliability, performance, continued availability, completeness or delays, omissions or interruptions in the delivery of Electronic Services or for any other aspect of the performance of the Electronic Services or for any failure or delay in the execution of any transactions through the use of the Electronic Services;
2. Any losses resulting from the failure of any connection or communication service to provide or maintain my access to the Electronic Services, regardless of whether the connection or communication service is provided by PHDTT , its affiliates, their officers, directors, partners, employees or agents or a third party provider; and
3. Any losses resulting from interruption, delay or disruption of such access or any erroneous communication between PHDTT , its affiliates, their officers, directors, partners, employees or agents on the one hand and me on the other hand; even if PHDTT , its affiliates, their officers, directors, partners, employees or agents have been advised of such losses.

E-MAIL

Because of inherent limitations on Internet e-mail (such as reliability of delivery, timeliness and security), I agree that I will not use e-mail in any manner not specifically authorized by PHDTT to request, authorize or effect the purchase or sale of any Securities and/or Other Property, to send fund transfers instructions, or for any other financial transactions that require real-time communication or more formal written authorization in accordance with applicable law or PHDTT policies. Any such request, order or instruction that I send in contravention of the foregoing may not be accepted and may not be processed by PHDTT. PHDTT will not be responsible for any loss or damage that could result from my requests, orders or instructions not being accepted or processed as described above. In addition, please be advised that due to security risks any personal or identifying information, such as account numbers, credit or debit card numbers, Social Security numbers or Passwords, should not be sent via Internet e-mail.

MODIFICATION OF AGREEMENT OR SERVICE

I understand that PHDTT may change any of the terms and conditions of this Agreement and/or eliminate any term or condition anytime. PHDTT reserves the right, but does not intend to follow it as a matter of course, to notify me of modifications to the Agreement by mailing or e-mailing a written notice or new Agreement to me. I understand that the normal method of notifying me of modifications to the Agreement will be to post the information on the PHDTT Web site. I also agree that PHDTT may change its Service anytime and that it is not obligated to provide me with notice of such a change.

PHD TRADING TECHNOLOGIES, LLC PRIVACY POLICY DISCLOSURE

Your privacy is our priority.

We are committed to protecting our customers' personal and financial information. In the course of providing you with products and services, we need to collect and maintain certain nonpublic personal information about you. This Privacy Statement answers some questions about what nonpublic personal information we collect, what we do with it, and how we protect it.

What types of nonpublic personal information about me do you collect?

When you open and maintain an account with us we collect the following types of information:

- Information provided by you on applications or other forms, such as your name, mailing address, Social Security number, date of birth, employment information, investment experience, and risk tolerance.
- Information about your transactions with us, such as your account balance, trading activity and payment history.
- Information about you from consumer-reporting agencies and/or information services companies that include creditworthiness, credit history and identity verification.

What types of nonpublic personal information about me do you disclose?

We may disclose nonpublic personal information about you that we collect, primarily to make available to you the financial products and services that we and our business partners provide. We do not disclose nonpublic personal information about former customers to anyone, except as permitted by law.

To what types of entities (other than those companies used to process or service transactions) do you disclose my nonpublic personal information?

We may disclose certain information about you to our affiliated companies and to other financial services providers with which we have joint marketing agreements or that offer financial products and services with us or on our behalf. By sharing information about you and your accounts, transactions, and other customer relationships with our affiliated companies and other financial services providers, we can provide you with a broader range of financial products and services, improve your experience with us, and better serve your financial needs.

We may also disclose information that we collect from you such as your name, contact information, and customer relationships with us to nonaffiliated third parties that perform services for us other than processing or servicing transactions, such as marketing or market research. For example, we may provide your name, address, phone number, and/or e-mail address to vendors who send our e-mail or regular mail.

We require that all entities with which we share your nonpublic personal information, including companies that process or service transactions for us, agree to keep your information confidential. We also prohibit them from using or disclosing your information except for the limited purposes and to the persons for whom disclosure was intended, or as otherwise permitted by law.

We do not sell your personal information to third-party marketers or any other entity for any purpose. In some limited circumstances, we may disclose nonpublic personal information about you to a non-financial services company, such as a retailer with which we have a marketing program, but only with your prior consent (or "opt in"). If you consent (or opt in) to such disclosure, the information shared will be limited to that stated in our request for your consent. Account balance, credit, Social Security number, and trading activity information are never disclosed.

To what other types of entities might you disclose my nonpublic personal information?

We also may disclose information about you to companies that service, maintain or process for us your transactions and accounts. For example, we provide information to companies that prepare and mail account statements and transaction confirmations.

Information about web site usage and visitors to our website is shared with a reputable third-party for the purpose of targeting our Internet advertisements in other sites. To do this, we use clear GIFs, or pixel tags, on this site, which allow us to recognize a browser's cookie when a browser visits this site. The information we collect and share through this technology is not personally identifiable. For more information about our third-party advertiser or for your choices about not having this anonymous information used, please [click here](#).

We use clear GIFs, or pixel tags, provided by our ad serving company to help manage our online advertising. These clear GIFs allow our ad serving company to recognize a browser's cookie when a browser visits this site. This allows us to learn which ads bring users to our website. The information we collect and share through this technology is not personally identifiable (it does not include your name,

address, telephone number or email address). For more information about our ad serving company or for your choices about not having this anonymous information used, please [click here](#).

In addition, we disclose nonpublic personal information to nonaffiliated third parties as permitted or required by law. These parties include government/regulatory organizations such as the Federal Bureau of Investigation (FBI), Internal Revenue Service (IRS), and the Securities and Exchange Commission (SEC), and to parties under court order or subpoena that request this information. Disclosures for which you have provided your consent or you have directed us to make are also permitted.

What are my rights to opt out of disclosure and how can I exercise them?

The law allows you to "opt out" of our sharing nonpublic personal information about you in certain circumstances with affiliated and nonaffiliated companies; that is, you may direct us to not make such disclosures. We do not currently share information about you with any affiliate or third party that triggers this opt out right. Therefore, there is no need for you to opt out. If in the future we desire to disclose your information in a way that is inconsistent with this policy, we will notify you in advance and provide you with the opportunity to opt out of such disclosure.

How do you protect the confidentiality and security of my nonpublic personal information?

We maintain physical, electronic, and procedural safeguards that meet or exceed industry standards to guard your nonpublic personal information. Any Customer and / or trading related data sent across public network space such as the Internet while utilizing one of our products is protected by industry leading encryption mechanisms. We make sure that the technology we use is always up to date to achieve the best possible protection at any given time.

Our employees (for example, customer service and compliance personnel) and third party service providers have access to your nonpublic personal information only on a "need to know" basis. We conduct regular internal audits of our business practices and procedures, examining confidentiality standards and information access in order to protect your personal information.

How can I access and update the nonpublic personal information that PHD Trading Technologies, LLC collects about me?

We take measures to ensure that your nonpublic personal information is accurate and up-to-date. You can also update certain nonpublic personal information that we collect about you. To update your mailing address or your home or work phone numbers, please contact your Relationship Manager or write to us at:

PHD Trading Technologies, LLC
23854 US-59
Kingwood, TX 77339

In your communication, please include your account number(s), your old information, and the new information that you want updated.

For answers to other questions regarding our Privacy Statement, please e-mail support@phdtt.com.

ANTI-MONEY LAUNDERING

Thank you for your interest in PHD Trading Technologies, LLC. Please fill out all applicable forms completely and return the forms, along with a **photo ID** for all beneficial account owners, to the following address in order to begin the account opening process:

PHD Trading Technologies, LLC
23854 US-59
Kingwood, TX 77339

Attn: New Accounts To help the government fight the funding of terrorism and money laundering activities, Federal law requires all financial institutions to obtain, verify, and record information that identifies each person who opens an account.

What this means for you: When you open an account, we will ask for your name, address, date of birth and other information that will allow us to identify you. We may also ask to see your driver's license or other identifying documents.

A corporation, partnership, trust or other legal entity may need to provide other information, such as its principal place of business, local office, employer identification number, certified articles of information, government issued business license, partnership agreement or a trust agreement.

What happens if I do not provide the information requested:

We may not be able to open an account or carry out transactions for you. If an account has already been opened for you, we may have to close it.

Please note that if you are opening an account in the name of a Corporation, Limited Liability Company (LLC) or a Partnership you must include copies of all corporate documents including: Corporate Resolutions, Operating Agreements, Partnership Agreements and Additional pertinent corporate documents.

BUSINESS CONTINUITY SUMMARY

As part of our ongoing commitment to our clients, this will serve to provide you with an overview regarding the PHD Trading Technologies, LLC ("PHD Trading") Business Continuity Plan ("BCP").

Business Purpose

On April 7, 2004, the Securities and Exchange Commission approved NASD Rules 3510 and 3520 which require member firms to create and maintain a business continuity plan. A business continuity plan is a plan that will enable the firm to continue its business operations in the event of a significant business interruption.

Business Continuity Components

PHD Trading has evaluated the impact of business interruptions resulting from various events including but not limited to loss of facilities and resources. The BCP was developed by identifying methods to protect and restore critical business processes, records, data and systems to allow customers to transact business. PHD Trading relies on a third party provider for customer records, transactions, custody of funds and securities and operating systems. The third party provider has a business continuity plan with system redundancy and back-up facilities.

The PHD Trading BCP addresses the following key elements:

- Data Back-Up and Recovery
- Identification of Mission Critical Systems
- Financial and Operational Assessments
- Alternate Communications with Customers
- Alternate communications with Employees
- Alternate Physical Location of Employees
- Impact of Critical Business Counter-Parties
- Regulatory Reporting
- Communications with Regulators
- Customers Access to Funds and Securities

Recovery Plan

In the event of a business interruption, PHD Trading has established a data recovery plan as well as staff and workspace recovery plan. The data recovery plan includes maintenance of redundant real-time system facilities located outside of Houston, Texas. The staff and workspace recovery plan includes the relocation of critical personnel to alternate sites. The PHD Trading BCP is designed to enable the firm to be operational within 24 hours or less assuming that third party providers and industry critical systems are operational.

Updates and Information Requests

The PHD Trading BCP is reviewed and tested at a minimum annually. Modifications and updates are made to incorporate any material business change or regulatory requirement. To obtain a copy of the PHD Trading BCP summary plan, please submit a written request to:

PHD Trading Technologies, LLC

Attn: Compliance Department

23854 US-59

Kingwood, TX 77339

PHD Trading will continue to promptly post modifications and updates to the BCP on the website located at <http://www.PHDTT.com>. In the event of a business interruption, customers may contact us at (281) 809-6961.

EXTENDED HOURS RISK DISCLOSURE STATEMENT

You should consider the following points before engaging in trading outside of regular market hours.

Risk of Lower Liquidity. Liquidity refers to the ability of market participants to buy and sell securities. Generally, the more orders that are available in a market, the greater the liquidity. Liquidity is important because with greater liquidity it is easier for investors to buy or sell securities, and as a result investors are more likely to pay or receive a competitive price for securities purchased or sold. There may be lower liquidity in extended hours trading as compared to regular market hours. As a result, your order may only be partially executed, or not at all.

Risk of Higher Volatility. Volatility refers to the changes in price that securities undergo when trading. Generally, the higher the volatility of a security the greater its price swings. There may be greater volatility in extended hours trading than in regular market hours. As a result, your order may only be partially executed, or not at all, or you may receive an inferior price in extended hours trading than you would during regular market hours.

Risk of Changing Prices. The prices of securities traded in extended hours trading may not reflect the prices either at the end of regular market hours or upon the opening the next morning. As a result, you may receive an inferior price in extended hours trading than you would during regular market hours.

Risk of Unlinked Markets. Depending on the extended hours trading system or the time of day, the prices displayed on a particular extended hours trading system may not reflect the prices in other concurrently operating extended hours trading systems dealing in the same securities. Accordingly, you may receive an inferior price in one extended hours trading system than you would in another extended hours trading system.

Risk of News Announcements. Normally, issuers make news announcements that may affect the price of their securities after regular market hours. Similarly, important financial information is frequently announced outside of regular market hours. In extended hours trading, these announcements may occur during trading, and if combined with lower liquidity and higher volatility, may cause an exaggerated and unsustainable effect on the price of a security.

Risk of Wider Spreads. The spread refers to the difference in price between what you can buy a security for and what you can sell it for. Lower liquidity and higher volatility in extended hours trading may result in wider than normal spreads for a particular security.

Risk of Lack of Calculation or Dissemination of Underlying Index Value or Intraday Indicative Value ("IIV"). For certain derivative securities products, an updated underlying index value or IIV may not be calculated or publicly disseminated in extended trading hours. Since the underlying index value and IIV are not calculated or widely disseminated during extended hours trading sessions, an investor who is unable to calculate implied values for certain derivative securities products in those sessions may be at a disadvantage to market professionals.

DAY TRADING DISCLOSURE

Day trading can be extremely risky

Day trading generally is not appropriate for someone of limited resources and limited investment or trading experience and low risk tolerance. You should be prepared to lose all of the funds that you use for day trading. In particular, you should not fund day-trading activities with retirement savings, student loans, second mortgages, emergency funds, funds set aside for purposes such as education or home ownership, or funds required to meet your living expenses. Further, certain evidence indicates that an investment of less than \$50,000 will significantly impair the ability of a day trader to make a profit. Of course, an investment of \$50,000 or more will in no way guarantee success.

Day traders rapidly buy and sell stocks throughout the day in the hope that their stocks will continue climbing or falling in value for the seconds to minutes they own the stock, allowing them to lock in quick profits. Day traders usually buy on borrowed money, hoping that they will reap higher profits through leverage, but running the risk of higher losses too.

Customers must be cautious of claims of large profits from day trading

Customers need to be wary of advertisements or other statements that emphasize the potential for large profits in day trading. Day trading can also lead to large and immediate financial losses. Watch out for "hot tips" and "expert advice" from newsletters and websites catering to day traders. Some websites have sought to profit from day traders by offering them hot tips and stock picks for a fee. Once again, don't believe any claims that trumpet the easy profits of day trading. Check out these sources thoroughly and ask them if they have been paid to make their recommendations. Remember that "educational" seminars, classes, and books about day trading may not be objective. Find out whether a seminar speaker, an instructor teaching a class, or an author of a publication about day trading stands to profit if you start day trading.

Day trading requires knowledge of securities markets

Day trading requires in-depth knowledge of the securities markets and trading techniques and strategies. In attempting to profit through day trading, you must compete with professional, licensed traders employed by securities firms. You should have appropriate experience before engaging in day trading.

Day trading requires knowledge of a firm's operations

You should be familiar with a securities firm's business practices, including the operation of the firm's order execution systems and procedures. Under certain market conditions, you may find it difficult or impossible to liquidate a position quickly at a reasonable price. This can occur, for example, when the market for a stock suddenly drops, or if trading is halted due to recent news events or unusual trading activity. The more volatile a stock is, the greater the likelihood that problems may be encountered in executing a transaction. In addition to normal market risks, you may experience losses due to system failures.

Day trading will generate substantial commissions, even if the per trade cost is low

Day trading involves aggressive trading, and generally you will pay commissions on each trade. The total daily commissions that you pay on your trades will add to your losses or significantly reduce your earnings. For instance, assuming that a trade costs \$16 and an average of 29 transactions are conducted per day, an investor would need to generate an annual profit of \$111,360 just to cover commission expenses.

Day traders must watch the market continuously during the day at their computer terminals. It's extremely difficult and demands great concentration to watch dozens of ticker quotes and price fluctuations to spot market trends.

Day traders also have high expenses, paying their firms large amounts in commissions, for training, and for computers. Any day trader should know up front how much they need to make to cover expenses and break even.

Day trading on margin or short selling may result in losses beyond your initial investment

When you day trade with funds borrowed from a firm or someone else, you can lose more than the funds you originally placed at risk. A decline in the value of the securities that are purchased may require you to provide additional funds to the firm to avoid the forced sale of those securities or other securities in your account. Short selling as part of your day-trading strategy also may lead to extraordinary losses, because you may have to purchase a stock at a very high price in order to cover a short position.

Potential Registration Requirements

Persons providing investment advice for others or managing the securities accounts for others may need to register as either an "Investment Advisor" under the Investment Advisors Act of 1940 or as a "broker" or "dealer" under the Securities Exchange Act of 1934. Such activities may also trigger state registration requirements.

Like all broker-dealers, day trading firms must register with the SEC and the states in which they do business.

Confirm registration by calling your state securities regulator and at the same time ask if the firm has a record of problems with regulators or their customers. You can find the telephone number for your state securities regulator in the government section of your phone book or by calling the North American Securities Administrators

Association at (202) 737-0900. NASAA also provides this information on its website at <http://www.nasaa.org/about-us/contact-us/contact-your-regulator/>. Please visit <http://www.sec.gov/investor/pubs/daytips.htm> for more information.

DAY TRADING MARGIN DISCLOSURE

Definition of a "Pattern Day Trader"

"Pattern day traders" are defined as those customers who day trade four or more times in five business days. If day trading activities do not exceed six percent of the customer's total trading activity for the five-day period, the clearing firm is not required to designate such accounts as pattern day traders. The six percent threshold is designed to allow clearing firms to exclude from the definition of pattern day trader those customers whose day trading activities comprise a small percentage of their overall trading activities.

In addition, the rule requires a firm that knows, or has a reasonable basis to believe, that the customer is a pattern day trader to designate such customer as a pattern day trader immediately, instead of delaying such determination for five business days.

Minimum Equity Requirement

The rule requires that a pattern day trader have deposited in his or her account minimum equity of \$25,000 on any day in which the customer day trades. The required minimum equity must be in the account prior to any day trading activities. If the customer meets the pattern day trading criteria and does not have the minimum equity in his or her account, the firm will issue an equity deficiency call. This call is separate and distinct from the day trading margin call.

Day Trading Buying in Power

Day trading buying power is four times the day trader's maintenance margin excess. This calculation is based on the equity in the customer's account at the close of business the previous day, less any maintenance margin requirement, multiplied by four for equity securities.

Day Trading Margin Calls

In the event a day trading customer exceeds his or her trading buying power, firms are required to issue a day trading margin call to pattern day traders that exceed their day trading buying power. Customers have five business days to deposit funds to meet this day trading margin call. The day trading account is restricted to day trading power of two times maintenance margin excess, beginning on the trading day after the day trading buying power is exceeded until the earlier of when the call is met or five business

days. If the day trading margin call is not met by the fifth business day, the account must be further restricted to trading only on a cash basis for 90 days or until the call is met.

Two Day Holding Period Requirement

The rule requires that funds used to meet the day trading minimum equity requirement or to meet a day trading margin call must remain in the customer's account for two business days.

Prohibitions of the Use of Cross Guarantees

Under the amendments, pattern day traders are not permitted to meet day trading margin requirements through the use of cross guarantees. Each day trading account is required to meet the applicable requirements independently, using only the financial resources available in the account. Accordingly, pattern day traders are prohibited from using cross guarantees to minimum equity requirements or to meet day trading margin calls.

MARGIN DISCLOSURE STATEMENT

We are furnishing this document to you to provide some basic facts about purchasing securities on margin, and to alert you to the risks involved with trading securities in a margin account. Before trading stocks in a margin account, you should carefully review the margin agreement provided by your broker. Consult your broker regarding any questions or concerns you may have with your margin accounts. When you purchase securities, you may pay for the securities in full or you may borrow part of the purchase price from your brokerage firm. If you choose to borrow funds from your firm, you will open a margin account with the firm. The securities purchased are the firm's collateral for the loan to you. If the securities in your account decline in value, so does the value of the collateral supporting your loan, and as a result, the firm can take action, such as issue a margin call and/or sell securities in your account, in order to maintain the required equity in the account.

It is important that you fully understand the risks involved in trading securities on margin. These risks include the following:

- **You can lose more funds than you deposit in the margin account.** A decline in the value of securities that are purchased on margin may require you to provide additional funds to the firm that has made the loan to avoid the forced sale of those securities or other securities in your account.
- **The firm can force the sale of securities in your account.** If the equity in your account falls below the maintenance margin requirements under the law, or the firm's higher "house" requirements, the firm can sell the securities in your account to cover the margin deficiency. You also will be responsible for any shortfall in the account after such a sale.
- **The firm can sell your securities without contacting you.** Some investors mistakenly believe that a firm must contact them for a margin call to be valid, and that the firm cannot liquidate securities in their accounts to meet the call unless the firm has contacted them first. This is not the case. Most firms will attempt to notify their customers of margin calls, but they are not required to do so. However, even if a firm has contacted a customer and provided a specific date by which the customer can meet a margin call, the firm can still take necessary steps to protect its financial interest, including immediately selling the securities without notice to the customer.
- **You are not entitled to choose which security in your margin account is liquidated or sold to meet a margin call.** Because the securities are collateral for the margin loan, the firm has the right to decide which security to sell in order to protect its interests.
- **The firm can increase its "house" maintenance margin requirement at any time and is not required to provide you advance written notice.** These changes in firm policy often take effect immediately and may result in the issuance of a maintenance margin call. Your failure to satisfy the call may cause the member to liquidate or sell securities in your account.

- **You are not entitled to an extension of time on a margin call.** While an extension of time to meet margin requirements may be available to customers under certain conditions, a customer does not have a right to the extension.
- **The IRS requires Broker Dealers to treat dividend payments on loaned securities positions as in lieu dividends for 1099 tax reporting purposes.** Taxation of substitute dividend payments may be greater than ordinary on qualified dividends.

(Firm refers to either the clearing firm or PHD Trading)

FEE DISCLOSURE STATEMENTS

- A monthly minimum commission fee will be charged for accounts which maintain less than \$5,000 in total account value (equity) and generate less than \$25 in monthly commissions. The monthly fee assessed on such accounts will be \$25, minus any actual commissions charged in the prior month. Accounts which generate \$25 or more in commissions will not be charged any fee to maintain their accounts at PHDTT, even if the total account value falls below \$5,000. The equity calculation will be performed on the first business day of each month, using the prior month's commissions to offset any fee.

For example, an account which has a total value of \$4,000 on July 1st 2016 and generated \$20 in commission in all of June 2016, will be billed the \$5 difference. If the same account generated no commissions in May, it will be billed the full \$25 amount. Accounts which have more than \$5,000 in equity will not be subject to the monthly minimum commission fee. Additionally, accounts with less than \$5,000 in equity will only have access to PHDTT Web Trader, our web-based trading platform.

- Margin accounts which do not have free cash available to meet any fees which the account may incur will have the fees deducted from margin and will thus be subject to any applicable margin debit charges.
- Margin accounts with no available margin, or Cash accounts which do not have free cash available, will be subject to the liquidation of positions in order to free up the funds required to pay any fees.
- Market data fees differ based on Professional or Non-Professional subscriber status and do not include any applicable taxes.
- NYSE data feed subscribers with multiple terminals may be eligible for reduced per-terminal rates.
- Fees and rate, including Market Center fees and Routing Charges, are subject to change without prior notice.

By signing this agreement (Checking the e-signature box below), I acknowledge that I am agreeing to each of the provisions above, in which I agree in advance to arbitrate any controversies that may arise between us in the state of Delaware. I also acknowledge that I received a copy of this agreement.

By checking the e-signature box below, you acknowledge that this agreement is signed, just as if you had manually signed a paper agreement.

I certify my taxpayer identification number and agree to the Customer Account, Options and Margin Agreements, Privacy Policy, Risks Disclosures, PHD Trading Agreement, Extended Hours Risk Disclosure Statement, Day Trading Risk, Margin Disclosure, Fee Disclosure and electronically sign this agreement.