IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF GEORGIA ATLANTA DIVISION

C-E Minerals, Inc.,)
)
Plaintiff,)
)
V.) CIVIL ACTION FILE
)
CARBO Ceramics, Inc.,) NO.: 1:11-CV-2574-JOF
)
Defendant.)

Declaration of Steven Fortier, Ph.D.

My name is Dr. Steven Fortier. I am over the age of 18 and otherwise fit and competent to make this declaration, which is based on my personal knowledge and, where specifically indicated, my review of company records.

1. I have a doctorate in Geological Sciences, and I am the General Manager (effectively the CEO) of C-E Minerals, Inc. I have been employed by C-E or another affiliate of C-E's parent company, Imerys U.S.A., Inc., for about 16 years.

- 2. C-E has its principal office in Roswell, Georgia, and it owns a facility for the mining, processing and sale of clay in Andersonville, Georgia.
- 3. I am familiar with CARBO Ceramics, Inc., to which C-E has sold clay from its Alabama and Georgia reserves. In particular, I am familiar with a June 1, 2003 Raw Materials Requirements Agreement. A copy of that supply agreement, as it appears in the files of C-E, is attached to this declaration as Exhibit A.
- 4. C-E sold clay to CARBO under this 2003 supply agreement through December 31, 2010, when it expired. Under that agreement, C-E sold CARBO "raw" clay, which is clay that had not been fired or processed by C-E. Most of that clay came from C-E's Alabama reserves, although some came from Georgia.
- 5. CARBO never communicated to me or, to the best of my knowledge, anyone at C-E that the specifications, quantities or other characteristics of the raw clay it was purchasing from us were somehow

confidential, secret or proprietary. CARBO certainly never asked me or, to my knowledge, anyone at C-E to treat that information as confidential, secret or proprietary.

- 6. In the course of C-E fulfilling its 2003 supply agreement with CARBO, CARBO did not communicate to me or, to the best of my knowledge, anyone else at C-E any confidential, secret or proprietary information regarding the identity or preferences of CARBO's customers, the way that it manufactured proppants, the manner in which it processed clay after delivery by C-E, or any comparable matter regarding its operations or processes. We quite simply sold CARBO a raw good without being privy to any details of what CARBO did with it after delivery.
- 7. In addition to supplying raw materials, C-E produces a range of ceramic products from clay for use in industrial applications involving high temperatures and pressures. For example, C-E produces multiple grades of sintered kaolin, which is basically clay fired into a ceramic.

Those sintered kaolin products are shaped into spherical or granular particles ranging in size from a few microns to several millimeters in diameter. (By way of comparison, a lightweight ceramic proppant is approximately 1 to 2 millimeters in diameter.)

- 8. Our sintered kaolin products are described in greater detail on the product specification pages of our website (www.ceminerals.com) under the heading "MULCOA® CALCINES." Like proppants, these are "refractory" products, meaning that they maintain their structural integrity and strength under high temperatures and pressures. We sell these products for use in various industrial applications, such as the bricks used in the interior of steel furnaces and aluminum smelters or the casting molds used to create steel automobile parts.
- 9. Thus, C-E has the large kilns and other production facilities, as well as the proven capacity, to manufacture refractory products from clay. In addition, C-E can draw on the expertise of the Imerys family of companies, which are world leaders in transforming mineral resources

into specialty products for industrial and construction applications. C-E's manufacturing facilities and production expertise, all in proximity to substantial reserves of clay in Andersonville and elsewhere in Georgia, gave C-E the potential to enter the market as a viable manufacturer of lightweight ceramic proppants for sale to the oil and gas industry. That was true in 2003, when CARBO and C-E entered the supply agreement described above and at all times since.

10. Building on and modifying the assets described above, C-E has now constructed a line at its existing Andersonville, Georgia facility to produce lightweight ceramic propants for sale by another Imerys U.S.A. affiliate. We started construction of that line in 2010. Barring some unforeseen development, it will be in production well before year end, probably October. C-E and other Imerys companies have invested millions of dollars to develop this production capacity and are hiring about 40 new employees for this endeavor.

Although the types of clay we sold to CARBO were no secret, it is 11. also the case that we are producing proppants using clay with different characteristics than what we delivered to CARBO under the 2003 supply agreement. For example, the alumina (Al₂O₃) content of the clay we are using is materially lower than the raw clay that we sold to CARBO under that agreement. In addition, we are using partially calcined clay, also known as a meta-kaolin. This is clay that has been fired at medium temperatures and duration to change its chemical composition and structure. It is no secret that material of this sort can be used to manufacture proppants. For example, publicly available product data sheets used by C-E as early as 2003 to describe its product offerings note that this material (sold by C-E as "CK46") can be used "in the production of alum, refractory ceramic fibers, proppants and other ceramic based products." Exhibit B (2003 product data sheet).

12. The files of C-E contain the correspondence attached as Exhibits C, D & E, which are respectively dated July 15, July 21 and August 7, 2006.

I declare under penalty of perjury and subject to 28 U.S.C. § 1746 that the foregoing is true and correct.

Executed on September 9, 2011.

Dr. Steven Fortier

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RAYY MATERIAL REQUIREMENTS AGREEMENT

THIS AGREEMENT made as of June 1st, 2003, between C-E Minerals Inc., a corporation organized and existing under the laws of the state of Delaware and having an office at 901 East Eighth Avenue, King of Prussia, Pennsylvania 19406 (hereinafter "C-E"), and CARBO Ceramics Inc., a corporation organized and existing under the laws of the state of Delaware and having an office at 6565 MacArthur Blvd., Suite 1050, Irving, Texas 75039-2461 (hereinafter "CARBO").

WITNESSETH:

CARBO desires to purchase a supply of kaolin, a naturally occurring mineral more particularly described (and meeting the specifications set forth) in Appendix A hereto (the "Product", also sometimes called "clay" or "ore"), for use in the manufacture of ceramic proppants.

C-E is able and desires to supply CARBO with such Product on the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the premises, the parties agree as follows:

1. TERM

The term of this Agreement shall be seven (7) years commencing January 1, 2004 and ending December 31, 2010.

2. **OUANTITY**

- A. During the term of this Agreement, C-E shall make available for sale to CARBO each year and CARBO shall have the right to purchase from C-E each year up to 200,000 net tons of the Product.
- B. In each year during the term of this Agreement, subject to Paragraph 2.A hereof, CARBO shall be obligated to purchase from C-E, as a minimum, seventy percent (70%) of its actual annual requirements of the Product during such year for its operations in Eufaula, Alabama.
- C. CARBO may specify that up to 25% of the Product provided pursuant to this Agreement come from the Andersonville local low Alumina ores (approximately 47% Alumina). For the quantity of ores provided from Andersonville from time to time C-E shall provide sufficient quantities of ores from other locations to enable CARBO to blend the ores to achieve the specifications set out on Appendix A. Notwithstanding the aforementioned ore source specifications, the ores delivered to the CARBO Enfaula Plant will meet the product specifications (See Appendix A) on average for each 1,000 Tons delivered.

3. DELIVERY

- A. CARBO shall advise C-E on or before October 1 of each year, beginning October 1, 2003, of the tonnage of the Product it projects to purchase during the next calendar year for use at its Eufanla Plant. Such projections shall be estimates only and CARBO shall not be committed to accept deliveries of such amounts. CARBO shall use reasonable business efforts to advise C-E promptly in the event of any change in its annual purchase projections for any year.
- B. C-E and CARBO shall communicate regularly, and C-E shall use its best efforts to ensure the availability of Product for sale hereunder on an "as needed" basis. CARBO shall use its best efforts (to extent feasible) to space evenly its actual purchase orders for Product, and C-E shall (subject to paragraph 2. A hereof) be obligated to fill such orders. Each such purchase order shall be subject to all of the terms and conditions of this Agreement.
- C. Delivery of the Product as supplied from Eufaula local C-E Mines shall be F.O.B. open truck, C-E's mine stockpile in Barbour and/or Henry Counties, Alabama ("C-E's Mines"), or other deposits mutually agreed upon. CARBO shall be responsible for the scheduling of and payment for transport of Product from C-E's Local Mines (or such other deposits mutually agreed upon). Product as supplied from C-B Andersonville deposits shall be delivered, at C-E's expense, by C-E arranged trucks to CARBO's Eufaula Plant ore storage location.
- D. Risk of loss and title for local C-E clays pass to CARBO upon delivery to CARBO's designated carrier at C-E's mine, or other deposits mutually agreed upon. Risk of loss and title for C-E Andersonville clays pass to CARBO upon delivery and unload at CARBO's Eufaula Plant ore storage.
- E. CE agrees to continue the practice of stockpiling a "wet weather" reserve for CARBO under the terms and at the location described in Appendix C.

4. PRICE

- A. The price for the Product purchased from C-E shall be: \$ 15.00 per net ton delivered to CARBO from C-E Andersonville deposits and \$17.75 per net ton F.O.B. C-E local Enfaula mines or other local deposits as agreed upon.
- B. The prices shall be adjusted on January 1 of each year, beginning January 1, 2005, using the previous September's Producer Price Index ("PPI") for kaolin and ball clay, published by the US Department of Labor, Bureau of Labor Statistics. (An example of the calculation intended to be performed by the parties is set forth in Appendix B hereto.) If, during the term of this Agreement, the PPI should increase or decrease by an amount in excess of 8% in any calendar year, the parties

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shall meet to negotiate an equitable price adjustment for each subsequent year during such term. In the event the parties cannot agree on a price adjustment within thirty (30) days after the applicable PPI change, either party may terminate this Agreement by written notice to the other.

If the PPI is discontinued and substantially the same basic data is used to compile a similar index, such similar index shall be used. If the PPI is discontinued and no such similar index shall be compiled, the parties shall negociate in good faith in order to agree upon another substitute index. If such negotiations do not result in timely agreement as to a substitute index either party may terminate this Agreement by written notice to the other.

5. NON-COMPETE

Withour intending to limit the legal rights of either party, CARBO and C-E agree as follows: that CARBO will not enter into direct competition with C-E in the manufacture of calcined clay for general sale to refractory or other related industry, and that C-E will not enter into competition with CARBO in the manufacture or sale of ceramic proppants. This agreement will endure for 3 years after the expiration of this contract.

6. PAYMENT

Payment for conforming Product sold and delivered hereunder shall be not thirty (30) days from date of invoice. Invoices shall be sent on a monthly basis. Invoices shall include a copy of the weight-ticket covering the Product being invoiced.

7. ASCERTAINMENT OF WEIGHT

The weight of the Product delivered shall be determined by weighing on state-certified scales acceptable to both parties. C-E and CARBO shall maintain all required certification documentation on file at all times at the site of such scales.

8. WARRANTY

C-E warrants that the Product when delivered will conform to the specifications contained in Appendix A hereto for every 1,000 tons of Product so delivered. C-E warrants that the Product delivered hereunder shall be free of contaminants and other foreign substances rendering the Product unsuitable for the economic use of Owner.

9. <u>INDEMNIFICATION</u>

To the fullest extent permitted by law, C-E shall indemnify and hold harmless CARBO, and agents and employees of CARBO from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of 1591165-2

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this Agreement, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Product itself) including loss of use resulting therefrom, but only to the extent caused in whole or in part by negligent acts or omissions or breach of this Agreement by C-E or anyone directly or indirectly employed by C-E or anyone for whose acts C-E may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by the negligence of a party indemnified hereunder.

10. INSURANCE

C-E shall purchase from and maintain in a company or companies lawfully authorized to do business in the State of Alabama such insurance as will protect C-E and CARBO from claims which may arise out of or result from C-E's operations under this Agreement and for which C-E may be legally liable, whether such operations be by C-E or by a subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable.

C-E shall maintain worker's compensation in at least the minimum amount stipulated under the Alabama's worker's compensation statutes, including Employers Liability. Such insurance policy shall include a waiver of any right of subrogation of the insurers thereunder against CARBO and of any right of the insurers to any set-off or counterclaim or any other deduction, whether by attachment or otherwise, in respect of any liability of any person or entity insured under any such policy.

11. NOTICE

All notices under this Contract required or permitted to be given by CARBO to C-E and all payments to be made by CARBO to C-E hereunder shall be delivered personally to C-E or sent to C-E at the address set out at the beginning of this Agreement, or at such other address as C-E may hereafter furnish in the manner provided herein to CARBO.

All notices herein required or permitted to be given by C-E to CARBO shall be sent by registered or certified United States mail, return receipt requested, addressed to CARBO at CARBO Ceramics Inc., Attn. Paul G. Vitek, 6565 MacArthur Boulevard, Suite 1050, Irving, TX 75039, or at such other address as CARBO may hereafter furnish in the manner provided herein to C-E.

12. FORCE MAJEURE

A. The term "Force Majeure" as used herein shall mean acts of God, natural calamities, acts of the public enemy, blockades, insurrections, strikes, slowdowns or differences with workmen, riots, wars, disorders, civil disturbances, fires, explosions, storms, floods, landslides, washouts, labor or material shortages, boycotts, breakdowns or damage to plants, equipment or facilities, interruptions to

transport. 2mbargoes, acts of military authorities, acts of local or federal governmental agencies or regulatory bodies, court actions, arrests and constraints and, without limitation by enumeration, any other cause or causes not reasonably within the control and without the fault or negligence of the party affected which wholly or partly prevents the mining, processing, loading or transportation of Product by C-E or the receiving, transporting, accepting or using of Product by CARBO.

B. If because of Force Majeure, either party hereto is unable to carry out its obligations under this Agreement and if such party shall promptly give to the other notice by telex or telephone of such Force Majeure, including a complete description thereof, then the obligation of the party giving such notice shall be suspended to the extent made necessary by Force Majeure and during its continuance; provided, however, that the party giving such notice shall use its best efforts to eliminate such Force Majeure insofar as possible with a minimum of delay. No event of Force Majeure shall relieve CARBO of its obligation to make payments due for Product delivered by C-E under this Agreement. Deficiencies in deliveries or acceptance of Product caused by an event of Force Majeure shall only be made up by mutual consent.

15. ENTIRE AGREEMENT

This written instrument contains the entire agreement between the parties hereto concerning the subject matter hereof, and there are no other understandings or agreements between said parties or either of them in respect hereto. No change, addition to or waiver of the terms and provision hereof shall be binding upon either party unless approved in writing by an authorized representative of such party, and no modifications shall be effected by the acknowledgment or acceptance of forms containing other or different terms and conditions. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute a single instrument.

14. ASSIGNMENT

This Agreement shall be binding on the legal successors of the parties hereto, but shall not otherwise be assignable by either party without the written consent of the other.

15. APPLICABLE LAW

This Agreement and the language used herein shall be construed and enforced in accordance with the laws of the State of Alabama.

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IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the day and year first above written.

C-E MINERALS INC.

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Name: Michael K. Pierce

Title: Vice President of Sales

CARBO CERAMICS INC.

Name: Mark Edmunds

Title: Vice President, Operations

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APPENDIX A

SPECIFICATIONS FOR KAOLIN

QUALITY SPECIFICATIONS (on a calcined basis) (Average Over 1,000 T Delivered)

1.5%

Al2O3 Content

Typical

Weekly Average	51.0% <u>+</u> 1
Minimum Individual Sample	45.0%
Maximum Individual Sample	65.0%
Fe ₂ O ₃ Content	
Maximum	3.0%

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APPENDIX B

1. Annual Adjustment of Base Price Per Ton (example):

Base Price Per Ton		\$ 16.00
Average Monthly PPI for Kaolin and Ball Clay for 2003	•	133.4
Average Monthly PPI for Kaolin and Ball Clay for 2004		130.3
Percentage Change		(2.32%)
Revised Base Price Per Ton		\$ 15.63

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APPENDIX C

Replacing the side agreement between Robin Dozier of CE Minerals and Tom Palamara of CARBO Ceramics Inc.:

OBJECTIVE

To provide ore availability to CARBO Ceramics Inc. during periods of wet weather (which can prevent hauling from the mine sites). CE Minerals will store a mutually agreed upon tonnage of appropriate alumina content raw materials for CARBO Ceramics Inc. at the former A.P. Green plant site.

PRICE

CE Minerals will invoice CARBO Ceramics Inc. for half of the contract price of the ores when stockpiled, the remaining half of the contract price is to be invoice upon delivery; plus shipping and handling cost incurred by CE Minerals for the following:

- Loading of ores at the various stockpile locations. (\$0.50 per ton)
- Trucking of ores from the various stockpile locations to the former A.P. Green plant site. Rates are as follows:

Distance (Miles)	Rate (\$) Per Ton
1	0.97
2	1.33
3	1,42
4	1.50
5	1.57
6	1.65
7	1.74
8	1.82
9	1.90
10	1.97

Mileage will be rounded to the nearest mile and rates interpolated where required.

3. Weighing of the trucks on certified scales at the former A.P. Green plant site and pushing up the piles. (\$0.50 per ton)

KAOLIN

QUALITY SPECIFICATIONS

Al₂O₃ Content

Minimum Individual Sample	40.0%
Maximum Individual Sample	49.0%
Likely Average (no guarantee)	46-47%

FE₂O₃ Content

Maximum 3.0%



CK 46® **PRODUCT DATA**

Description:

CK46 is a light calcined metakaolin with some residual chemically held water for reactivity. During calcination, care is taken to ensure that no mullite is formed that is undesirable. Controlled blending of various ores, processing and calcination provides a consistent product with excellent physical and chemical properties.

Applications:

CK-46 is used as a raw material in the production of alum, refractory ceramic fibers, proppants and other ceramic based products.

Chemical Analysis (%):	Typical	Minimum	Maximum
(Calcined basis)	. 	46.0	50,0
Ai_2O_3	45.5	45.0	
SiO ₂	51.1	48.0	53.0
-	0.96	0.80	1.20
Fe ₂ O ₃	0.05	V • = •	0.10
CaO		1.60	2,20
TiO ₂	1.86	1.60	
MgO	0.07		0.10
	0.07		0.10
Na ₂ O	·		0.30
K₂O	0.17	1.00	3.00
L.O.I.*	2.00	1.00	J.00

^{*} Includes moisture and loss on ignition at 2000°F

Physical Properties:

Loose Pack Density lbs./cu. ft.

59-61.5

DR2203

901 East Eighth Avenue . King of Prussia, Pennsylvania 19406



USA • (610) 265-6880

Fax: (610) 337-7163 • www.ceminerals.com • inquire@

CEMINERALS.COM

Although redebnable care has been taken in the preparation of the information contained herein, C-E Minerala extends no warranties and securine no responsibility as to the accuracy or suitability of such application to purchaser's intended purposes or consequences of its use.

Bernd Durstberger 100 Mansell Court East Suite 615

Roswell, GA 30076 Phone: 770-225-7902 Fax: 770-225-7901





To:	Mr. Mark EDMUNDS / CARBO CERAM.	From:	Bernd Durstberger	
Fax:	1-972-401-0705	Pages:	1÷2	
Phone	Pt	Date:	7/15/2006	
Re:		CC:		
	See enclosed memorandum			



July 15, 2006

Mark L. Edmunds Vice President, Operations CARBO Ceramics Inc. Suite 1050 6565 MacArthur Blvd.

VIA FACSIMILE: 1-972-401-0705 (original document sent by courier)

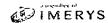
RE: Contract Amendment Discussions

Dear Mark:

I wanted to follow-up concerning our discussions concerning a possible amendment to the supply agreement between Carbo Ceramics and C-E Minerals. Please note that since our latest phone conversation Meredith Lackey had not heard back from Ms. Bruder concerning the remaining legal issue in conjunction with above amendment.

As you well know, many months have now transpired since our first request for a contract amendment (which we had sought due to the dramatic energy increase experienced in our mining operations). We recently re-evaluated our tentative agreement (which you had graciously agreed to accept) consisting of a sales price increase in essence in exchange for a decreased purchase commitment from Carbo's side (plus the redefinition of certain operational practices). Due to the passage of time, we have internally reached the conclusion that this proposed agreement simply does not make economic sense for C-E Minerals anymore. We weighed the inherent long-term volume loss vs. the immediate energy cost relief, and being only months away from an expected regular inflation adjustment (for 2007 and beyond), the numbers just did not work out. In summary, I wish to inform you that we herewith formally withdraw our request for a contract amendment. We will of course honor our contractual obligations under the existing supply agreement, as I am certain will Carbo Ceramics, and we look forward to many years of continuing our mutually beneficial business relationship.

On a side note, and as I have repeatedly mentioned to you in recent phone conversations, it remains C-E's position that Paragraph 5 of the current supply agreement as a practical matter is of no consequence and has not been in force since the inception of the supply agreement. Therefore, I wish to reiterate that



C-E Minerals does not intend to abide by the covenant appearing in aforementioned paragraph.

Best regards,

Beind Durstberger Chief Operating Officer C-E Minerals, Inc.



July 21, 2006

VIA FACSIMILE AT (770) 225-7901 FOLLOWED BY UPS NEXT DAY AIR SERVICE

Mr. Bernd Durstberger Chief Operating Officer C-E Minerals, Inc. 100 Mansell Court East Suite 615 Roswell, GA 30076

RE: Your correspondence of July 15, 2006

Dear Bernd:

We received your letter dated July 15, 2006, regarding the contract amendment discussions (a copy of which is attached hereto for reference). We firmly disagree with the opinion stated in your letter regarding Paragraph 5 of the Raw Material Requirements Agreement, dated June 1, 2003 (the "Agreement"). CARBO Ceramics Inc. believes that the rights and obligations described in Paragraph 5 are valid, legal, and enforceable.

As such, we reserve all rights to enforce the mutually agreed upon rights and obligations described in Paragraph 5, and C-E Minerals should fully expect that CARBO Ceramics would do so in the event of a breach of this provision of the Agreement. Thus, I take your statement in the second paragraph of your letter that C-E Minerals "...will of course honor our contractual obligations under the existing supply agreement..." at face value and fully expect C-E to honor its commitments. I, too, look forward to C-E performing to both the letter and spirit of the contract for the remainder of the contract term, as will CARBO Ceramics.

I have enjoyed our discussion of these past few months, and look forward to further dialogue in the future.

Sincerely

Mark L. Edmunds

Vice President, Operations

CARBO Ceramics Inc.
Suite 1050
6565 MacArthur Blvd.
Irving, Texas 75039
Telephone 972/401-0090
Fox 972/401-0705



August 7, 2006

Mark L. Edmunds Vice President, Operations CARBO Ceramics Inc. Suite 1050 6565 MacArthur Blvd.

SENT VIA UPS NO. 1Z5YR2550190762094

RE: Your correspondence of July 21, 2006

Dear Mark:

I am writing to follow-up on your letter dated July 21, 2006 and to clarify our position regarding Paragraph 5 of the current supply agreement. C-E Minerals will honor all our contractual obligations under the agreement. However, for reasons which we have stated to you and Ms. Bruder during various conference calls, we believe that Paragraph 5 is unenforceable, has not been in force as a practical matter since the inception of the agreement, and as such we do not intend to abide by the covenant contained in this particular paragraph.

As I am sure you will recall, I had offered various times to organize a meeting or conference call with respective outside counsel in order to discuss your interpretation of Paragraph 5. Unfortunately, this offer was declined and to date we have not received detailed legal support for your assertion concerning this provision. We therefore are not in a position to reach a differing conclusion than our current one. Having said that, I would like to mention that I remain open to conducting such a conversation, if you or your legal team desire.

In the meantime, I wish to assure you that CE Minerals will continue to comply with all of the remaining provisions of the current agreement, and we will continue to perform the agreement just as we have since its inception.

Best regards,

Bernd Durstberger // Chief Operating Officer

C-E Minerals, Inc.

