

[16:57] Guest joined #yg.
[16:58] <Alain> hello guest
[16:58] <Guest> hello
[16:58] <africanuck> hello guest
[16:58] <Sniz> hello guest
[16:58] <Crystal> hi guest
[16:58] <openmind> hello!
[16:58] <Cattrix> Howdy !
[16:58] <africanuck> friendly bunch today, aren't we? lol
[16:58] <Annie> Hi dear guest..welcome
[16:58] <Sniz> lol
[16:59] Anon2786 (~Anon2786@172.143.56.72) joined #yg.
[16:59] <Alain> Guest, could you identify yourself please?
[16:59] <Guest> thanks...from Cabo
[16:59] <Alain> Oh hi Tom
[16:59] Nick change: Anon2786 -> Sara
[16:59] <africanuck> Hello Tom
[16:59] <Guest> sure.. tom chatham
[16:59] Nick change: Guest -> Tom
[16:59] <Annie> Hi Tom
[16:59] <Sniz> Hi Tom. Welcome!
[16:59] <openmind> hello!
[16:59] <Cattrix> Good morning
[16:59] <openmind> Good afternoon
[17:00] <Crystal> hi tom
[17:00] <Alain> Tom, I want to welcome you to our study group and we are very honoured to have you here
[17:00] <africanuck> and good eveing too
[17:00] <Tom> glad to be here
[17:00] <Alain> We are gemologists and gemology students from 5 continents and I think most are represented today
[17:01] <Alain> Are you ready for the load of questions?
[17:01] <Tom> sure.. fire away
[17:01] <africanuck> Maybe a quick rundown of how we do this would be useful first
[17:02] <Sniz> good idea
[17:02] <africanuck> so as not to overload you all at once, the people who have a question type "question" and then wait their turn
[17:02] <Alain> Tom, first is hurricane Wilma anywhere near you?
[17:03] <Tom> nope..clear as a bell
[17:03] <africanuck> we've found it useful in the past if you have finished answering, tack on an "ok" at the end, so we know that you have finished (instead of still typing something else) (ed. all "ok's" are deleted due to cosmetics)
[17:03] <Alain> Good to hear
[17:03] <Alain> Is there an update on created diamonds from Chatham?
[17:05] <Tom> I am not sure how much everyone knows, but we are in a full prelim production stage putting out 1000 stones a month
[17:05] <africanuck> question
[17:05] <Alain> africanuck, go ahead
[17:05] <africanuck> only coloured diamonds at this time?
[17:06] <Tom> we actually grow near white now... and turn them pink. white is too cheap in nat
[17:06] <ars> question
[17:06] <africanuck> question
[17:06] <Alain> go ahead ars
[17:06] <ars> From your perspective, how is the market for sythetics compared to, say 10 years ago? DO you find there is a noticeable From

your perspective, how is the market for synthetics compared to, say 10 years ago?

[17:07] <ars> sorry, got cut off

[17:07] <ars> From your perspective, how is the market for synthetics compared to, say 10 years ago?

[17:08] <Annie> question

[17:08] <Tom> the market has expanded as the old school dies off. additionally, the diamond has brought a whole new type of customer to the front.

[17:08] Ux4 (~Ux4@70.152.64.239) joined #yg.

[17:08] <Alain> africanuck

[17:08] <africanuck> up to what size are you capable of creating diamonds?

[17:08] <africanuck> rough, I mean

[17:09] <Tom> we could grow 100ct sizes, theoretically..but don't. we stick to 1-5ct rough

[17:09] <Alain> Annie

[17:09] <africanuck> question

[17:09] <Annie> my question was related to the last answer fromTom.

[17:09] <Annie> Tom, would you be able to elaborate on the technique

[17:11] <Tom> no problem.. it is the belt method invented by Tracy Hall for GE in 1954. the problem area is in the flux, temp, pressure controls. it's like making wine...just grapes, right?

[17:11] <Alain> africanuck

[17:11] <africanuck> do you stick to 1-5 ct rough because of market interest, or is there a "DeBeers" factor in there somewhere? ie: protecting certain market shares?

[17:13] <Tom> we are aiming at the 1 ct cut market. I could cut 10 carat emeralds all day long but would miss the masses. Is there a deBeers factor? yes, but I try to ignore them!

[17:13] <Alain> I have a follow up on that

[17:14] <Alain> Recently Jonathan Oppenheimer declared that the synth. diamond industry is no longer a threat to them as you supposed to be aiming at the electronics industry

[17:14] cityfire (~cityfire@68.111.144.175) joined #yg.

[17:14] hehheh (~hehheh@202.156.240.5) joined #yg.

[17:15] <ars> question

[17:16] <Will> question

[17:16] <hehheh> ??

[17:16] <Tom> that's the kind of attitude I ignore. in recent polls by major companies outside our industry, it was found that 70 to 80% of public would buy a man made diamond...if it was identical... that's got DeBeers going around in circles.

[17:16] <Alain> ars

[17:16] <ars> You said diamonds have brought a new customer. Are diamond sales beginning to surpass your other gems?

[17:17] <africanuck> question

[17:17] <Tom> diamond sales have exceeded our other stone sales but keep in mind we are talking a factor of 10 price wise.

[17:17] <Alain> Will

[17:18] <Will> Are you aware of anyone who is using synthetic materials - infusion or some other method to heal natural stones - like emeralds?

[17:21] <Tom> I gave a talk in Bogata in 94... my presentation was on the potential to heal, permanently, natural emerald by the hydrothermal process. I showed examples of the end product. no one would listenn. In Bangkok they are doing this to ruby, initially my accident, now on purpose.

[17:21] <Alain> hehheh, did you have a question for Tom?

[17:22] <Alain> africanuck
[17:22] <Tom> sorry for typo...that was BY accident
[17:22] <africanuck> Just to clarify this, your coloured diamonds are all irradiated to change their colours from white?
[17:22] <Alain> Yes we got that, we don't care much for spelling
[17:22] <hehheh> Tom, can you get some trash samples and spare some to us, gemmo students?? :)
[17:22] <Tom> i understand but it changed the meaning...
[17:23] <Tom> colors:
[17:23] <Tom> only pink is irradiated, then heat treated under HP.. blue is Boron in flux, yello nitrogen
[17:24] <africanuck> question
[17:24] <Alain> I believe hehheh had a question about laboratory mishaps
[17:25] <Tom> anything at the "trash" level is worthless...same as natural bort...
[17:25] <Alain> africanuck
[17:25] <africanuck> if the fashion for coloured diamonds passes, do you foresee selling white diamonds?
[17:26] <Will> question
[17:27] <Tom> like I said earlier, it's too cheap in natural. this process requires 10,000 tons per sq. in at 1300C... takes a press 3 stories high. the equipment costs are high.
[17:27] <Alain> Will
[17:28] <africanuck> question
[17:28] <Will> how have these diamonds been received by the industry - labs and such - as far as the work it takes to separate them from naturals?
[17:29] <Tom> in 1993 I made my first announcement... and it shocked the industry...more
[17:30] <Tom> then Debeers stepped in with the machine to separate...it was already invented just waiting..for me.. more
[17:31] <Tom> today, the labs are very comfortable with separation... the general retail trade is not.. more
[17:31] <Tom> but this is just like the introduction of cultured pearls, our emerald..ruby, etc..more
[17:32] <Tom> the trade has got to recognize that they can't be everything to everyone... when in doubt..send it out..
[17:32] <Alain> Tom, could you give some pointers how ordinary gemologists could identify them with reasonable certainty?
[17:33] <africanuck> question
[17:33] <Annie> question
[17:33] <Tom> half the production is falling into Si &I.. the metallic inclusions are clearly not the same as natural..more
[17:34] <Tom> the cleaner stones have color zoning, reaction to short wave unlike natural...in most cases more
[17:35] <Tom> the hour glass effect can be seen with a loupe after a lot of experience... I just had someone point that out to me..
[17:35] <Alain> Thanks, .. africanuck
[17:35] <africanuck> if Annie's is on diamonds, let her go first
[17:35] <Alain> Annie?
[17:36] <Annie> african was before me
[17:36] <Alain> africanuck
[17:36] <africanuck> I see on your website that the first rubies were produced in 1958, but the first sapphires not until 1975. Why such a long wait for two types of corundum?
[17:37] <Tom> the first announcement was just that..an announcement...no commercial production..more

[17:38] <Tom> I joined my father in 1965 and ruby was still giving him fits...more

[17:38] <Tom> to better understand the way sapphire is or is not like ruby we tried different colors..more

[17:39] <Tom> and found that there is no corralation between different corundums...more

[17:40] <Tom> each has it's own set of problems that come with different dopents... blue is the most difficult.

[17:40] <Alain> Annie, you had a question

[17:42] <Will> question

[17:42] <africanuck> question

[17:42] <Annie> Tom,you said that labs are comfortable in separating; but general retail trade is not.

[17:42] <Tom> yes..

[17:42] <Alain> lol

[17:42] <Alain> Will,

[17:42] <africanuck> :)

[17:43] <Tom> is there a question there?

[17:43] <africanuck> I think maybe annie wasn't quite finished

[17:43] <Alain> Want to elaborate Annie?

[17:43] <Annie> Yes, its preety late here, so I am slow - is it because it is difficult for them to understand and not be disclosed or be unsure about the whole process

[17:44] <Tom> the trade wants a \$50 black box that doesn't need instructions..more

[17:44] <Tom> most of the trade doesn't want to do their homework but hold me responsible..

[17:44] <Alain> Will, you had a question?

[17:45] <Will> given the general trend to use carbon-like materials in electronics and other applications - will Chatham be delving more into this arena? Also, there are now crystals of carbon which are tougher and harder than diamond - any work in that direction by your firm - gems or otherwise?

[17:45] <Tom> the electronic application for diamond and diamond like materials is out there now..more

[17:46] <Tom> today over 2 billion carats of man made diamond is sold..more

[17:47] <Tom> with all that production one learns a lot about production... Debeers is the biggest producer of synthetic diamond..more

[17:48] <Tom> we have no plans to look at the industrial application of diamond... the field is too crowded now and it takes very big wallets..

[17:48] <Alain> africanuck

[17:48] <africanuck> Why did your father choose to start with emeralds? Or were they just his first success?

[17:49] <Tom> Carroll Chatham was trying to grow diamonds...and almost killed himself..more

[17:49] <Tom> his father made him stop..so he looked for a more peaceful experiment and read no one had made emerald..more

[17:50] <Tom> unknown to him..at 14 years old..it had been done...more

[17:50] <Tom> the weekend experiment turned into months..then years..more

[17:51] barbra (~barbra@66.245.30.148) left irc: Ping Timeout

[17:51] <Tom> while in college he succeeded.. but not commercially. that was years later

[17:51] anatase (~anatase@66.245.30.148) left irc: Ping Timeout

[17:51] <Alain> He started at 14?

[17:51] <africanuck> question

[17:52] <Tom> He built a pretty good lab younger than that

[17:52] <Alain> Amazing, africanuck

[17:53] <Tom> he was not your ordinary kid...
[17:53] <africanuck> I think that he was a bit young for my question. I was going to ask if he was involved in military application research during WWII
[17:54] <hehheh> question
[17:54] <africanuck> silly question this time
[17:54] <Tom> he was a food chemist for WWI..totally out of his field..typical gov.
[17:54] <Alain> hehheh
[17:54] <hehheh> How did his dad get access to such hazardous chemicals and laboratory equipment at 14 years old??
[17:54] <hehheh> I mean how did your dad
[17:54] <hehheh> Sorry
[17:55] <Tom> back in his day the local drug store was called the chemist. more
[17:55] <Tom> if you knew what to ask for they sold it to you...no laws back in 1933..
[17:56] <hehheh> what about the equipment?
[17:56] <Annie> sure made him extraordinary
[17:56] <Alain> I have a question regarding the emeralds
[17:57] <africanuck> question
[17:57] <Alain> Tom, what is the cause of the flux melt emeralds usually having lower values in SG, RI and DR?
[17:58] <Tom> there are less heavy metals in our flux... nature has dirty beakers. there are naturals of the same but usually are not..
[17:59] <Alain> africanuck
[17:59] <africanuck> What do you use as a source of carbon? I'm asking this because of reading about a company called "LifeGems" who will take the ashes of someone near and dear and turn them into a yellow diamond for \$20,000 a carat.
[18:00] <Tom> carbon is carbon regardless of where it is...we are all carbon based..more
[18:01] <Tom> we use graphite which is dissolved in molton iron and nickel
[18:01] <Alain> Tom, are you always trying to improve the clarity in emeralds, corundum, or will you leave the veils in for us?
[18:01] <africanuck> question
[18:02] <Tom> we are always trying to improve some aspect of the growth..
[18:02] <Alain> africanuck
[18:02] <africanuck> Do you have other gemstones in the "project stage" that will hopefully be coming out in the future?
[18:03] <Tom> there is nothing left to duplicate that is worth the expense..not even Tanzanite is worth it..
[18:03] <Will> I am going to have to go - thanks for the education, Tom - and all of you. This has been a very entertaining and elucidating talk
[18:03] <cityfire> question
[18:03] <Tom> plus.. i am not Carroll Chatham..
[18:03] <Alain> cityfire
[18:03] Will (~Will@24.179.84.247) left irc: Will
[18:04] <cityfire> what percentage of cost in production is energy?
[18:04] <africanuck> question
[18:05] <Tom> very little energy is consumed by any of our processes.
[18:05] <Alain> africanuck
[18:05] <africanuck> Has your company produced gemstones varieties that have never been released to the market?
[18:06] <Tom> yes... want some black sapphire? That was my fathers last effort...
[18:06] <africanuck> hot pink spinel maybe ;)
[18:06] <openmind> question

[18:06] <Alain> openmind
[18:06] <openmind> how long did it take to improve developing new materials before they were ready to go on the market (going from scratch to having enough ready to sell)?
[18:07] <africanuck> question
[18:08] <Tom> each product varied. some we lucked out on, some took 20 years...and every time we solved the problem it was stupid... very simple.
[18:08] <Alain> africanuck
[18:09] <africanuck> Are you able to change the colour of your stones to suit whatever the current trends are, and do you do this? ie: cornflower blue vs royal blue etc
[18:10] <Tom> we are usually aiming at the color which commands the highest price at auction..more
[18:11] <Tom> but sometimes, like in emerald, we will produce lighter green as in Muzo or the blue of Sri Lanka..more
[18:11] <Tom> some things we can't change.. like make a sapphire to mimic Kasmire..
[18:12] <africanuck> question
[18:12] <Alain> Tom, what are average wholesale prices /ct for the diamonds?
[18:12] <keemoog99> question.
[18:12] <Tom> about \$1300/ct.
[18:12] <Alain> For a 1 ct?
[18:13] <Tom> no...1ct what? VVS? SI? I?.. they are all different.
[18:14] <Alain> Let's say a yellow 1ct brilliant SI .. stupid of me indeed.
[18:15] <Tom> I don't have a price list with me and we just revamped all prices but I would say \$1900/ct.
[18:15] <Alain> africanuck
[18:15] <africanuck> Do you sell the crystals too , or only cut stones?
[18:16] <Tom> we sell some crystals at shows, like Tucson, but generally we don't sell rough.
[18:16] <Alain> keemoog99
[18:16] <keemoog99> where is your faceting done, in house?
[18:17] <Tom> We have a factory in Shenzhen, China with 150 people cutting color and in Guanchow(?) we have 30 diamond cutters.
[18:18] <africanuck> question
[18:18] <Alain> africanuck
[18:18] <africanuck> Alain has promised you a bottle of wine, so I'm supposed to ask what kind you like :)
[18:18] <Alain> lol
[18:18] <hehheh> haha
[18:18] <Tom> I like good wine...
[18:19] <africanuck> any preferences, country, variety, year?
[18:19] <Tom> is he in south Africa? Good wine there
[18:19] <africanuck> red or white?
[18:19] <Tom> red..
[18:19] <Alain> Tom, where is the production of the diamonds taking place .. I read Russia or the USA
[18:19] <Alain> I'm in Holland btw .. will take care of it.
[18:19] <Tom> I quit Russia after 3 tries...more
[18:20] <Tom> 1= siberia, 2 moscow which is now owned by Gemesis then Kiev. more
[18:20] <Tom> I am working in "Asia" and will not say where.
[18:20] <Ux4> question
[18:21] <Alain> Ux4

[18:21] <Ux4> is not one of the lessons from chatnam in marketing and distribution -

[18:22] <Tom> yes..it's all about marketing and being first...or near first..

[18:23] <Alain> Tom, you mentioned De Beers is the largest producer of synth. diamonds

[18:23] <africanuck> Tom, he's a lawyer, probably going on and on for his question

[18:23] <africanuck> lol

[18:23] <Ux4> (i can spell, just can't type)

[18:23] <Alain> Where do you rank along Apollo and Gemesis?

[18:23] <Tom> I don't know if "rank" is the proper term but I know where your going..more

[18:24] <Tom> Apollo hasn't sold anything yet... the process is used widely in the industrial sector..more

[18:25] <Tom> but Apollo gets lots of press taling about gem use..more

[18:25] <Tom> Gemesis can only produce one stone at a time and they have 25 presses. more

[18:26] <Tom> I dropped this approach because it is not commercially feasible, in my opinion. For some reason these two get all the press.. but we get all the sales..

[18:26] <Alain> heh

[18:27] <africanuck> Ux4, were you finished with your question?

[18:27] <Ux4> yes...ty

[18:27] <africanuck> question

[18:27] <Alain> go ahead africanuck

[18:28] <africanuck> Are your other gems sold for industrial purposes as well, or only for jewerly purposes? Rubies in particular

[18:28] Anon4796 (~Anon4796@24.110.201.18) joined #yg.

[18:28] Nick change: Anon4796 -> senmee

[18:28] Nick change: senmee -> Anon4796

[18:29] <Tom> we have worked on a few projects for the gov. but all take years... ruby for laser work but must be doped a special way..more

[18:29] Anon4796 (~Anon4796@24.110.201.18) left irc: Anon4796

[18:29] <Tom> don't forget, our processes take up to a year..

[18:29] <africanuck> question

[18:29] <keemoog99> question.

[18:29] <Alain> go on africanuck

[18:30] <africanuck> The waste from your stones when they are cut, and that which is of lesser quality, do you recycle it or just throw it away? ie: remelt, filter and reuse

[18:31] <africanuck> coloured stones, i mean

[18:32] <Tom> my father tried to recycle it...cost too much. too dirty to reuse..we have drums and drums of emerald junk in storage..and no, you can't have it..more

[18:32] <Ux4> lol

[18:32] <Tom> every so often we get customers for low end emerald or ruby... or Tucson..you can sell anything in Tucson..

[18:33] <openmind> question

[18:33] <Alain> But you want to keep your reputation Tom?

[18:33] <Tom> as what?

[18:33] <Alain> As high end quality producer.

[18:33] <Annie> Keepmoog had a question

[18:34] <Alain> Go on keemoog99

[18:34] <keemoog99> on a personal note, tell us something about your dad that would surprise the gem folks.

[18:34] <Tom> everything has a market..

[18:35] <Annie> Openmind, you had a question

[18:36] <Tom> that's a tough one...

[18:36] <openmind> is market demand the only drive behind attempts to lab produce a certain material (as in "no sale, no gain")? or is there room for a I-dare-to-try-this-and-see-if-it-can-be-done attitude (despite costs, maybe to improve research investigation or to come up with new equipment)?

[18:37] <africanuck> question

[18:37] <Tom> carroll chatham often tried to grow crystals to see if he could, regardless of expense (unfortunately)..more

[18:38] <Ux4> question

[18:38] <Tom> today, we have to keep our eye on the bottom line.. more

[18:39] <Tom> and we don't have his ability to think outside the box, science wise..

[18:39] <Alain> africanuck

[18:39] <africanuck> how many companies are capable of producing 1 ct (cut) yellow diamonds?

[18:39] <Tom> i would say thousands..if not more.

[18:39] <Alain> Ux4

[18:40] <Ux4> i would like to obtain spectra of your materials for a project. are they online, if not, any chance?

[18:40] <Tom> have you seen the GIA report on our diamonds? it's all in there.

[18:40] <Alain> Tom, do you have some interesting news, gossip or anything else you loke to share with us?

[18:41] <Alain> like

[18:41] <Tom> russia has been producing diamonds even before GE...more

[18:42] <Tom> when I found them producing in 1992 in Siberia, all were sold into the natural market..more

[18:42] <Tom> they are still selling into the natural market...more

[18:42] <Tom> I have seen 20 ct clean white stones produced by GE..it can be done..more

[18:43] <Tom> if the russians figure it out... we are all in trouble.

[18:43] <africanuck> question

[18:43] <Alain> africanuck

[18:43] <africanuck> what percentage of the russian diamonds being sold are synthetic?

[18:44] <africanuck> passed off as

[18:44] <africanuck> natural

[18:45] openmind (~openmind@201.19.108.147) left irc: openmind

[18:45] <Tom> 25% of gem diamonds come from Russia..that's a hugh amount. The syn. diamond is in hundreds of carats per year and with more diamonds going through labs, more are being caught every day.

[18:45] <africanuck> follow up

[18:45] <africanuck> is that why they don't send their rough through DeBeers?

[18:47] <Tom> I thik they still have some sort of contract with Debeers but like to go independant too. Everybody wants to get away from Debeers. It is not worth the expense to switch natural for syn diamonds...remember, nat diamonds are free..you just pick them up off the ground!

[18:47] <Alain> Does anyone else have a question for our guestspeaker?

[18:48] <Alain> Or do you have a question for us Tom?

[18:48] <africanuck> not me, I think I've kept him away from the coffee pot long enough

[18:48] <Tom> yes, when do I get breakfast?

[18:48] <africanuck> lolol

[18:48] <africanuck> poor you

[18:48] <Alain> Yes you have been very patient with us and you did a fabulous chat with us
[18:48] <Ux4> ""
[18:49] <Tom> it's 11 am in Mexico..the beach is calling.. and so is a beer.
[18:49] <africanuck> Thank you so much for all of the great information and your time
[18:49] <Tom> your welcome...
[18:49] <Ux4> I always have a bm before my 1st morning beer
[18:49] <hehheh> Thank you so much for you very engaging sessioin
[18:49] <africanuck> no margueritas there?
[18:49] <ars> Thank you very much for your time. enjoy the beach!!
[18:49] <Catrix> Yes Thank you very much :)
[18:49] <Alain> Then we are no longer clinging on you and again, thank you very much for doing this with us
[18:49] <Tom> that's for after 3pm
[18:49] <Annie> Thank you Tom, very enjoyable evening and thank you for the information
[18:49] <Sniz> Thank you very much Tom! Great chat!
[18:50] <africanuck> daquiris in cuba at 12
[18:50] <Crystal> thanks Tom; great chat. good questions all. enjoyed it but must go tend ducks now. bye from crystal & baby chipmunk
[18:50] <africanuck> well, have one for all of us when 3 pm hits
[18:50] <Tom> it's always cocktail time someplace...bye (ed. e-mail deleted for the usual reasons)
[18:50] Tom left irc: Tom