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Subject: Tiberium Refinery WIP

Posted by [Aircraftkiller](#) on Sat, 04 Feb 2012 02:51:16 GMT

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Now that the Airstrip is nearly done, I'm moving on to the Refinery. I've used as many different references as I can. There's no way I can get this model as accurate as I have with my other ones, so I'm going for a more "realistic" style with the structure's design. A lot of the renders show it as a very compact building, which doesn't make sense with how I ended up building it in Max.

References:

Here's my version that's untextured and missing some extra detail on the connection port for the Harvester's holding tank:

I'm planning an animation to replace the "arms" that come with the current Refinery in Renegade. It will do exactly what it did in CC1 - the connection picks up the tank and pulls it off the Harvester after the cab of the Harvester splits in half to let go of the tank. It then flips up the tank and plugs it into the roof of the Refinery, allowing it to drain via gravity into the processing center underground.

I'll also be using this interior as a reference to work from:

<http://www.youtube.com/watch?v=hIOcKQgd7dA>

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Subject: Re: Tiberium Refinery WIP

Posted by [Generalcamo](#) on Sat, 04 Feb 2012 04:48:33 GMT

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Interesting.

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Subject: Re: Tiberium Refinery WIP

Posted by [Aircraftkiller](#) on Thu, 09 Feb 2012 02:38:21 GMT

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I've gotten it painted and I'm working on the interior. The problem is that I started my career and I'm really tired when I get home, so it's hard to find the time to work on this project lately. Will have to put some time in on the weekends and at least twice a week beyond that in order to push the rest of this out. When I have the time I'll get some new images up.

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Subject: Re: Tiberium Refinery WIP  
Posted by [Aircraftkiller](#) on Thu, 08 Mar 2012 01:25:30 GMT  
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It's been a rough month. Got overtime coming up and all that fun stuff. Will not have a lot of time to work on this except on weekends... And even that is a stretch. Here's the Refinery so far.

The little tan box is the character size in Renegade, so you have a sense of scale. I have a few things left to add, minor details mostly, plus a set of textures to finish up for it.

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Subject: Re: Tiberium Refinery WIP  
Posted by [halo2pac](#) on Thu, 08 Mar 2012 04:23:59 GMT  
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OMG THAT YELLOW PENIS HAS PINCHERS!

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Subject: Re: Tiberium Refinery WIP  
Posted by [NACHO-ARG](#) on Thu, 08 Mar 2012 12:03:39 GMT  
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the exterior model looks really good, just the skin doesn't feel right, i think you should make a new paint work for the exteriors instead of recycling fjords's textures, as for the interior, i love what i am seeing.

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Subject: Re: Tiberium Refinery WIP  
Posted by [Aircraftkiller](#) on Sat, 10 Mar 2012 04:37:09 GMT  
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I don't see a compelling reason not to re-use textures that I already created. I'm not looking to make my workflow take more time when I'm working within a limited time budget. Thanks for the concern, though.

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Subject: Re: Tiberium Refinery WIP  
Posted by [Aircraftkiller](#) on Sun, 18 Mar 2012 20:50:25 GMT  
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Changed the exterior texture to match the reference images. I think it looks a lot more compelling now. Still a lot of work left to do... This will probably be one of the most detailed structures.

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Subject: Re: Tiberium Refinery WIP  
Posted by [NACHO-ARG](#) on Mon, 19 Mar 2012 02:57:19 GMT  
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Subject: Re: Tiberium Refinery WIP  
Posted by [Vince](#) on Mon, 19 Mar 2012 21:28:14 GMT  
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nice origami model ack

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Subject: Re: Tiberium Refinery WIP  
Posted by [Aircraftkiller](#) on Sat, 28 Apr 2012 19:08:49 GMT  
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I've got more progress to show soon... Been way too busy at work. It's hard to come back home and do this after I do it at work all day long.

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Subject: Re: Tiberium Refinery WIP  
Posted by [Aircraftkiller](#) on Sat, 12 May 2012 22:48:04 GMT  
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I'll try to remember to put up some images of the interior soon.

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Subject: Re: Tiberium Refinery WIP  
Posted by [Blazea58](#) on Sun, 13 May 2012 02:09:18 GMT  
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Looks much better now, but would like to see more pictures of the interior sections, as you haven't shown that since it's been textured. What's the overall polygon count? I just want to get a feel for how many each structure is roughly, and how many polygons an entire base would be.

Have you considered perhaps making LOD models for them? I think it would benefit for maps using these structures to have them rendering at less than half of the polygons when at 150+ metres. I know you won't like this idea, but consider it for the people with low end computers lol.

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Subject: Re: Tiberium Refinery WIP  
Posted by [Aircraftkiller](#) on Sun, 13 May 2012 02:49:50 GMT  
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You can't LOD terrain AFAIK, and I deal with enough LOD at work to not want to deal with it when I come home.

These are quick test renders of the interior. Anything seen here is subject to change. For example, I've forgotten to add railings to the stairs, and I never got around to fixing the railings on the upper catwalks yet.

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Subject: Re: Tiberium Refinery WIP  
Posted by [jonwil](#) on Sun, 13 May 2012 05:17:32 GMT  
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You can't LOD terrain, vis is what you use to make heavy terrain not so bad on the engine.

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Subject: Re: Tiberium Refinery WIP  
Posted by [Blazea58](#) on Mon, 14 May 2012 04:44:26 GMT  
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Of course i wasn't referring to terrain itself, but was talking about the buildings itself. Other then that its no big deal, as the exteriors of the buildings are somewhat simplistic and can't be lowered by much from the looks of it, so Vis will do the trick.

Anyway's the interior is looking great, I like the overall theme of texturing, with lots of greys and darker tones. Nothing hard on the eyes, and the green floors are a nice touch also. Good job on this so far, looks promising.

Do you plan on making damage states? Would be interesting to see the trashed versions with all the pipes collapsed, and a few holes here and there with sparks coming out.

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Subject: Re: Tiberium Refinery WIP  
Posted by [Aircraftkiller](#) on Tue, 15 May 2012 23:50:23 GMT  
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The exteriors aren't as simplistic as they look. If I wanted to, I could set up LOD to bring them down to only a hundred polygons or so. However, like I said, I do this for real-time simulation every single day... I try to avoid it at home. Visibility systems will be preferable, although I can't imagine that I'm looking forward to setting that bullshit up again.

I'm not sure if I'll set up damage states to that extent. There's a strong possibility that it would take me longer to work on than I would like. This is already being pushed back a lot farther than I had expected it to be.

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Subject: Re: Tiberium Refinery WIP  
Posted by [NACHO-ARG](#) on Wed, 16 May 2012 00:43:51 GMT  
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the interiors are relly cool man, keep up the good work.

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Subject: Re: Tiberium Refinery WIP  
Posted by [liquidv2](#) on Thu, 17 May 2012 05:55:43 GMT  
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it's too real-looking for renegade; tone it down a bit, would you?

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Subject: Re: Tiberium Refinery WIP  
Posted by [Sean](#) on Thu, 17 May 2012 23:46:26 GMT  
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Needs more trees.

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Subject: Re: Tiberium Refinery WIP  
Posted by [Aircraftkiller](#) on Fri, 18 May 2012 00:25:50 GMT  
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Azazel wrote on Thu, 17 May 2012 19:46 I like the sensation of a penis in my bum.

I know. It must be exciting for you.

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Subject: Re: Tiberium Refinery WIP  
Posted by [Sean](#) on Fri, 18 May 2012 10:10:21 GMT  
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Aircraftkiller wrote on Thu, 17 May 2012 17:25 Azazel wrote on Thu, 17 May 2012 19:46 I like the sensation of a penis in my bum.

I know. It must be exciting for you.

I prefer tree's though.

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Subject: Re: Tiberium Refinery WIP  
Posted by [Hunter-Seeker](#) on Fri, 18 May 2012 13:37:21 GMT  
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Looks awesome

Anyway, I maybe missed something (as wasn't on for long time here) what for do you make it?  
And so you have any other stuff - I wanna see

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Subject: Re: Tiberium Refinery WIP  
Posted by [Aircraftkiller](#) on Fri, 18 May 2012 22:02:44 GMT  
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It's for Noddingham, the last unreleased Renegade map. I'm removing all of the original buildings and replacing them with my own highly accurate replicas of the C&C 95 buildings. I've also changed balance and adjusted some gameplay mechanics to reflect the first game.

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Subject: Re: Tiberium Refinery WIP  
Posted by [Renardin6](#) on Thu, 02 Aug 2012 11:06:17 GMT  
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I love it. Great work!

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Subject: Re: Tiberium Refinery WIP  
Posted by [OWA](#) on Wed, 15 Aug 2012 16:02:22 GMT  
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Looking great man.

All I'd say is put a few more polygons into those valve wheel things on the pipes, since you could probably make them look a lot more circular.

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Subject: Re: Tiberium Refinery WIP  
Posted by [Generalcamo](#) on Sat, 18 Aug 2012 00:29:53 GMT  
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Personally, I don't think they need more smoothness. This is a rather large war, probably larger in scale than WWII, as you have Nod's African Campaign, and GDI's Euro Defense, followed by the destruction of the Temple in Sarajevo. And don't forget that Nod almost invaded the Pentagon. So instead of using that welder fuel to make the pipes rounder, you could use that fuel for Tanks.

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Subject: Re: Tiberium Refinery WIP  
Posted by [OWA](#) on Sat, 25 Aug 2012 01:08:44 GMT  
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generalcamo wrote on Sat, 18 August 2012 01:29: Personally, I don't think they need more smoothness. This is a rather large war, probably larger in scale than WWII, as you have Nod's African Campaign, and GDI's Euro Defense, followed by the destruction of the Temple in Sarajevo. And don't forget that Nod almost invaded the Pentagon. So instead of using that welder fuel to make the pipes rounder, you could use that fuel for Tanks.

Personally, I'd like to see what Aircraftkiller thinks; because I have never seen hexagonal valve wheels in real life before and I think your excuses are incredibly poor.

If you wanna talk canon, I think if GDI can afford Mammoth tanks and Nod can afford Obelisks, both sides could at least afford round valve wheels.

Metal objects like that are usually cast, not welded. Plus, if they were somehow magically welded by a gas welder they'd use butane or propane, not diesel/gasoline/tank fuel.

tl;dr - Valve wheels still need to be rounder despite crappy excuses.

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Subject: Re: Tiberium Refinery WIP  
Posted by [Aircraftkiller](#) on Sat, 25 Aug 2012 04:02:40 GMT  
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I think that there need to be sacrifices to run better looking graphics on a 1998 engine. One of those sacrifices is having eight sided valve controls in exchange for more intelligently designed textures, interiors that are more than sparse wastelands, realistic looking buildings, and polygon

counts that aren't lower than the stuff I develop for at work.

I can clearly make smoother valve controls. The issue is that I don't want to. I'm using more textures and more geometry than the Renegade buildings by a factor of five, at minimum. This doesn't include the higher quality vehicles that I've been developing. I'm trying to strike a balance between looking good and running well, which is my job as an environment artist.

Quote:An environment artist is someone who works in the game industry as a 3D modeler, specializing in outdoor or indoor locations for a game's setting. They are responsible for creating the majority of the overall visuals the player will encounter on the screen, making approximate collision so that the player isn't colliding with every little detail, optimizing geometry so that the level runs at a manageable framerate, and helping bring life to the game world.

The main issue with a lot of mods built using Renegade's engine is that people push things way too far and don't realize that it's a 1998 engine. Sure, I can make 40k buildings with 2048x textures. Sure, I can make vehicles use three 2048x textures with 15k polygons. Should I? No, I shouldn't.

The end result is that they look round enough. I don't feel like adding 25 to 50 triangles per valve just so that they look slightly rounder. It's an old game. You don't see people catch grief for Half-Life 1 mods looking just as dated as the original game - you develop within the constraints of the engine, not beyond it.

---

Subject: Re: Tiberium Refinery WIP

Posted by [havoc9826](#) on Sat, 25 Aug 2012 04:19:20 GMT

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Aircraftkiller wrote on Fri, 24 August 2012 21:02 You don't see people catch grief for Half-Life 1 mods looking just as dated as the original game - you develop within the constraints of the engine, not beyond it.

Well, a certain mod team prefers to push the Half-Life 1 engine beyond what everyone thought was its limits. Not everyone cares to expend that kind of effort, though. Also, Renegade really uses an engine that old? Eesh.

---

Subject: Re: Tiberium Refinery WIP

Posted by [Aircraftkiller](#) on Sat, 25 Aug 2012 06:03:14 GMT

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ESF has been in development for 10 years, at the least. I'm doing this in the span of months. There are whole teams of people dedicated to making buildings like mine with a proper set of textures and clean geometry. I make the final call on the art direction, and I feel that eight sided valve controls on a 1998 engine are more than generous, especially since there's six of them and a lot of other details as well. I'd rather pack in more detail instead of cramming it into a few parts.

Finally, what point is there to more edges in Renegade? The engine doesn't show it off very well.



There's no specular highlighting. No normal maps. It has nothing particularly fancy that would require making higher resolution models.

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Subject: Re: Tiberium Refinery WIP  
Posted by [OWA](#) on Sat, 25 Aug 2012 16:52:38 GMT  
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All I'm concerned about is the fact that the valve wheels are a bit of a focal point to the interior and they just look plain ugly as octagonal shapes.

Renegade's engine won't mind if you put few extra polygons here and there, because at the end of the day it's the texture sizes that like to ruin your day with performance issues.

The buildings we have in AR are giant and have massive sprawling interiors, but w3d doesn't mind in the slightest. You'd be better off making things look good rather than chopping polygons out that contribute to the aesthetics in a big way.

I think you could easily strike the balance of looking good and running well without worrying about putting some extra polygons in your blocky valve wheels. In the end there are no negative repercussions because they won't affect the performance of the game. Putting a 4096x4096 texture map on them however, would kill it.

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Subject: Re: Tiberium Refinery WIP  
Posted by [Aircraftkiller](#) on Sun, 26 Aug 2012 03:38:48 GMT  
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Of course it doesn't mind when you're running it by yourself, or with smaller games. If all you intend to have running are 4v4 or lower, then optimizing performance isn't as important as it is for developing a Renegade map that may end up having 25v25 playing.

I may add the extra sides, but I don't feel it's worth the trade-off. I'm more interested in performance than I am with seeing a repeat of Fjords where a lot of players complain about framerates.

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Subject: Re: Tiberium Refinery WIP  
Posted by [OWA](#) on Sun, 26 Aug 2012 03:49:56 GMT  
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Aircraftkiller wrote on Sun, 26 August 2012 04:38 Of course it doesn't mind when you're running it by yourself, or with smaller games. If all you intend to have running are 4v4 or lower, then optimizing performance isn't as important as it is for developing a Renegade map that may end up having 25v25 playing.

I may add the extra sides, but I don't feel it's worth the trade-off. I'm more interested in

performance than I am with seeing a repeat of Fjords where a lot of players complain about framerates.

Fair enough. At the end of the day it's your decision. It's looking good anyhow.

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Subject: Re: Tiberium Refinery WIP  
Posted by [Aircraftkiller](#) on Sun, 26 Aug 2012 04:24:52 GMT  
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Sure, thanks for bringing up valid concerns.

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Subject: Re: Tiberium Refinery WIP  
Posted by [OWA](#) on Sun, 26 Aug 2012 18:03:20 GMT  
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Aircraftkiller wrote on Sun, 26 August 2012 05:24 Sure, thanks for bringing up valid concerns. No worries. Keep up the good work!

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Subject: Re: Tiberium Refinery WIP  
Posted by [trunkskgb](#) on Mon, 08 Apr 2013 19:35:59 GMT  
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Two questions.

Are these C&C 95 styled buildings done?  
And may I use them please?

Good work by the way too man! Always been a fan of your modeling over the years!

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Subject: Re: Tiberium Refinery WIP  
Posted by [Generalcamo](#) on Mon, 08 Apr 2013 20:09:44 GMT  
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From the last update I heard of, these buildings required rigging. So, I don't think so.

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Subject: Re: Tiberium Refinery WIP  
Posted by [Renardin6](#) on Mon, 14 Oct 2013 13:10:10 GMT  
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You should release your model as w3d replacements for Renegade.

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(Like your mammoth and orca...)

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Subject: Re: Tiberium Refinery WIP  
Posted by [Aprime](#) on Fri, 01 Nov 2013 20:08:39 GMT  
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Aircraftkiller wrote on Fri, 18 May 2012 18:02It's for Noddingham, the last unreleased Renegade map. I'm removing all of the original buildings and replacing them with my own highly accurate replicas of the C&C 95 buildings. I've also changed balance and adjusted some gameplay mechanics to reflect the first game.

Isn't that one of the early alpha maps of RenAlert [too]?

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Subject: Re: Tiberium Refinery WIP  
Posted by [Aircraftkiller](#) on Sat, 02 Nov 2013 03:45:45 GMT  
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Something like that

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Subject: Re: Tiberium Refinery WIP  
Posted by [Aprime](#) on Sat, 02 Nov 2013 06:01:56 GMT  
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Never forgot about the floating Barracks MCT that was right in the path of the Ore Truck.

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Subject: Re: Tiberium Refinery WIP  
Posted by [Kamuix](#) on Sat, 02 Nov 2013 20:42:40 GMT  
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that's awesome i love it good job AFK

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