

SMART GAS COMPRESSOR WITH AUTOMATION TECHNOLOGY



Kornbluth: Russian invasion of Ukraine will impact future helium supply



By Phil Kornbluth | 4 March 2022

Russia's invasion of Ukraine has dominated the news in recent days and the eventual outcome of the Ukraine crisis remains very uncertain. It is too early to know how things will turn out, how long the war will last, whether it will spread beyond Ukraine, whether additional sanctions will be implemented, or how long sanctions will last.

Nevertheless, I have been fielding a lot of questions related to the implications of the invasion for helium supply and have spent some time pondering how things might play out.

Short-term impact scenarios

Over the near term, the crisis in Ukraine should have fairly minimal impact on helium supply. Ukraine does not produce any helium and Russia, at present, operates a relatively small plant in Orenburg, whose production is sold primarily within Russia. The relatively modest quantity that is exported from Orenburg, including occasional spot loads, has been cut off from its usual European market.

The modest quantity of helium that would normally flow from Orenburg to Europe will try to find markets in countries that are not participating in sanctions. Helium Shortage 4.0 is pretty bad right now, but the war in Ukraine is not going to make it noticeably worse.

Another immediate negative impact on the helium business relates to the large number of empty 11,000 gallon containers that were at Gazprom's Helium Hub near Vladivostok waiting to be filled when the Amur plant experienced an explosion and fire on 5th January. At one point, there were over 100 containers in Russia waiting to be filled. While many of these containers have departed Russia, a significant number remain in the country.

It was already challenging to secure bookings with ocean carriers to transport these containers out of Russia *before* the invasion of Ukraine. Now, with major carriers suspending their service to Russian ports, it has become even more challenging to move these containers.

Read more: [Helium – Markets reimagined, Part 1 review](#)

I expect that these containers will gradually be able to leave Russia using unconventional routes via carriers or countries that are not participating in the sanctions. This is a matter of extra cost and headaches for Gazprom's customers, but should not have much impact on the current shortage.

Long-term impact scenarios

The longer term impacts of the Ukraine invasion are likely to be more significant. Gazprom's Amur project and Irkutsk Oil Company's (INK) Yaraktsky and Markovsky projects have significant reliance on foreign expertise and imported equipment from countries that are participants in the sanctions on Russia.

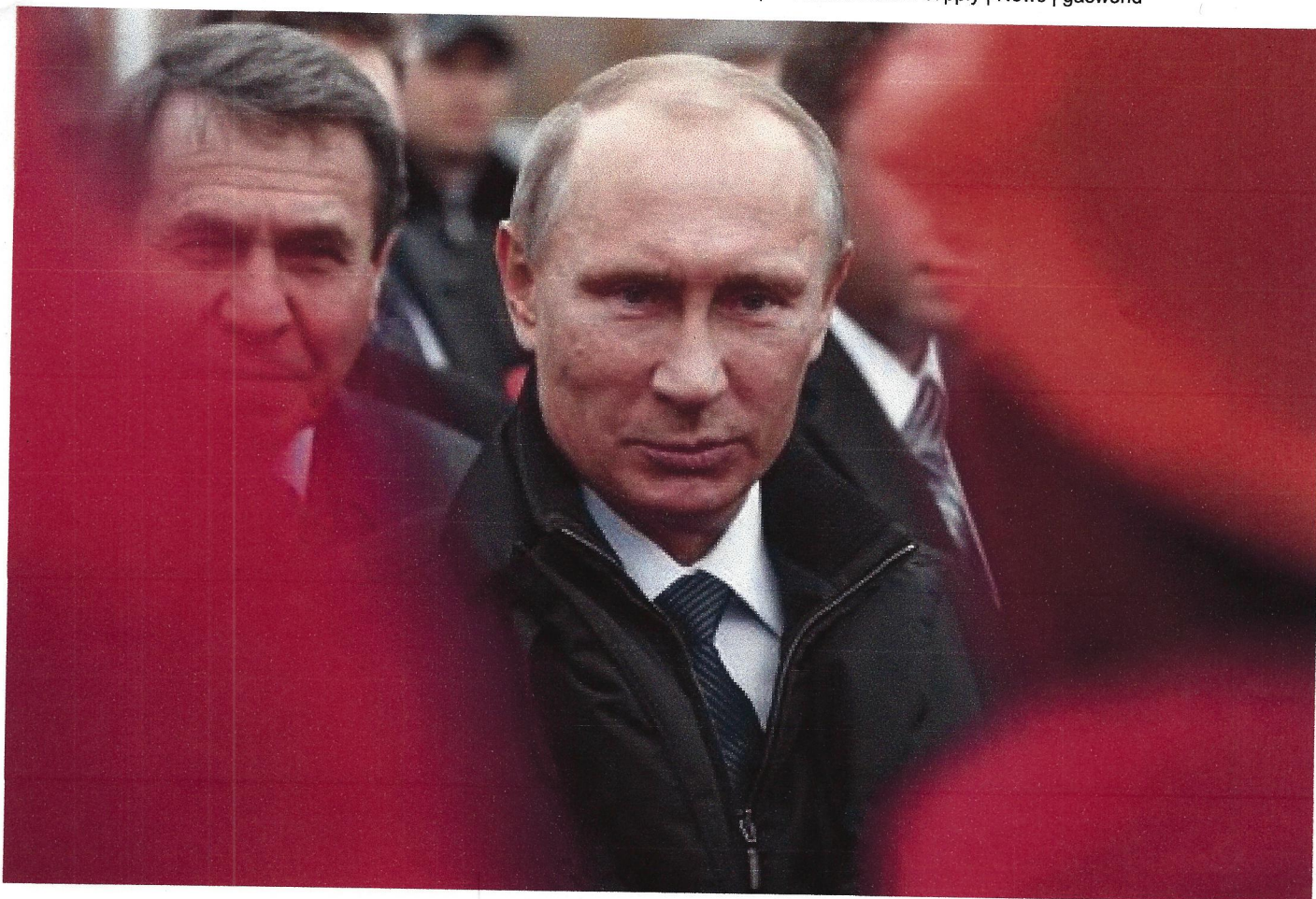
Technical experts from Europe or the US will simply not be willing or able to travel to Russia while the sanctions remain in place. Specialised equipment that is not available from Russian sources may simply not be available for export to Russian customers. While the impact is difficult to quantify, and the outlook could improve if there is early resolution of the situation in Ukraine and sanctions are lifted, it is safe to say that the crisis in Ukraine could significantly delay the restart of Amur and the start-ups of INK's Yaraktsky and Markovsky projects.

I would be surprised if there is any production from Amur or Yaraktsky in 2022.

Should severe sanctions remain in place for an extended period, it would raise questions about whether the helium sales and purchase agreements (SPA's) between Gazprom, INK and their customers would remain viable. It is possible that customers based in countries that are participating in the sanctions would not be allowed to purchase helium produced in Russia. There could also be difficulties with making payments, obtaining carriers, import/export and things of that nature.

Read more: [Can LNG replace Russian gas in Europe?](#)

It is important to note that, thus far, Gazprom and Russia's exports of natural gas and oil have not been included in the sanctions. It is not clear yet, if helium exports would be treated similarly to oil and gas with respect to sanctions. Of course, it is also unknown if sanctions will be in place long enough to impact the performance of those SPA's.



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The Russian invasion of Ukraine led by Vladimir Putin, President of Russia and Chief of Command, could have far-reaching impacts upon various gas markets.

If Gazprom's or INK's buyers *are* blocked from performance, Gazprom and INK might look to secure new customers from countries that are not participants in the sanctions. However, that would not be easily do-able, because smaller gas companies do not have the large container fleets that would be required to move large quantities of helium. While companies can certainly purchase new containers, the industry's capacity to build new containers is quite limited and it would take years to purchase the required number of containers.

It's also important to note that the previous two paragraphs are not meant to be 'predictions'. Rather, they are considering possible extreme scenarios that could result if severe sanctions remain in place for an extended period.

Another longer term impact is that gas companies and helium consumers will certainly give greater consideration to political risk when planning their helium supply portfolios. The major gas companies

had become quite relaxed about doing business in countries that bring an exposure to political risk, and this will undoubtedly be a greater factor in future decisions.

Why the impact is a fluid situation

Summing all of this up, the short-term impact of the Ukraine crisis will be relatively modest. The likely longer term impacts would be delays in the restart of Amur production and the start-up of INK's plants, which could extend the duration of Helium Shortage 4.0.

There are some really negative scenarios that are possible in the event that severe sanctions remain in place for an extended period.

All of which means there will be impact, but it's very much a fluid situation. Let's hope for an early resolution of the crisis in Ukraine, an end to the unnecessary loss of life and damage to property, and a return to some sense of normalcy.