MAX HORN
MOSAIC INSURANCE

mosaic moment

EPISODE_09

CAP THAT! A CLIMATE-CHANGE SOLUTION TO OIL & GAS POLLUTION

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INTRO

0:01 **Got a moment? Fast changing risks affect people, businesses and economies in today's turbulent world. Perils like cyber-attacks, political violence or threats to financial institutions. Listen in as Mosaic Insurance specialists quiz fellow experts on the most significant industry topics of our time. Welcome to this Mosaic Moment.**

0:24 Hi. I'm Max horn, an environmental liability specialist at Mosaic Insurance. Today, it's my pleasure to introduce Jeff Hanneman, a colleague of mine who is a managing director in AON Risk Solutions environmental practice. We're here today to discuss climate risk, its impact on the environmental insurance market, and how some very innovative trends in our space are turning that risk into business opportunity. Welcome, Jeff.

0:45 Thanks, Max. Looking forward to it.

0:47 I really appreciate that Jeff came to us with a new problem to solve as partners a while back. But we'll get to that pioneering project in a moment. First, just a bit of background on the landscape and some of the catalysts for change that we're seeing. Climate change and severe weather have been in the news a lot in the past year. We're insurance nerds, and we work in environmental insurance, but I don't think this is just our bubble, Jeff. 2024 was the warmest year on record. Wildfires, flooding, hurricanes are big news, and they're wreaking havoc on the world. Just personally, you know, living in the East Coast, growing up here, I never really experienced wildfire smoke, but it seems like that's gonna be a regular occurrence for my kids. Convective storms are really changing the landscape, and they've become the most severe natural disasters in the US, and there's been an increase in lightning strikes impacting the energy infrastructure.

1:37 Absolutely, Max. And it's what's interesting, I think, in this space, is to see all this climate change that we all are experiencing in any part of the country, and, you know, I often think, you know, where am I, where am I going to retire to, and what part of the country isn't being affected by climate change and weather? And really, everybody is. So, I think the general consensus is, it's not just about energy transition, it's about decarbonization, and how do we transition in an economy to a situation where we can remove CO2 and other gases that are affecting climate change, and through that, we're seeing new industries emerge. And you and I have worked on carbon sequestration, and we're here to talk about well plugging, but it's really interesting to see this new economy, really, and new technology emerging out of this space.

2:32 Absolutely. No, I totally agree. And carbon sequestration has been a fascinating project for the past few years, and we've really seen a large-scale uptake there. You know, the ethanol production, hydrogen, concrete, energy. There's definitely been some real uptakes and it's exciting. We've seen the development of single-source projects. We've seen sequestration hubs that are pulling in for regional areas. And we've seen some exciting progress in the permitting process as well, with West Virginia recently joining North Dakota, Wyoming and Louisiana as states with primacy authorization to permit class six injection wells.

3:11 Yeah, and for those not that familiar with carbon sequestration, what we're really talking about is taking CO2 that otherwise would have been emitted into the atmosphere and either capturing at its point, meaning, you know, at the refinery, at the coal plant, or in the case of direct air-capture facilities, where we can capture CO2 from anywhere in the world, right? Those facilities just suck in ambient air and filter out the CO2. And then in either case, once we capture that CO2, then we're permanently storing it underground, so that this CO2 is no longer contributing to climate change. And likewise, you know, with very similar to carbon sequestration, where we're taking CO2 out of the atmosphere, the other new emerging industry is in the area of orphaned well plugging. And the idea in the orphaned well plugging is we have hundreds of thousands of abandoned and orphaned wells. So these are wells that were drilled in the 1950s, the 1960s. Whoever originally drilled it and owned those wells has long been bankrupt, so that's why they're called orphaned wells, and each state in the US has a list of orphaned wells, but there's really not much money to what they call cap them, plug and abandon them correctly, because essentially, these wells are all leaking oil or they're leaking methane gas, and it's a huge issue. And so, what the new wrinkle has been is, there are companies out there that are going to the states, and they're saying, for example, in the state of Texas, we will take these 10, 20 wells off your hands that nobody owns on our own dollar, we will cap them. So, we will go and hire somebody to go in and replug the well so it's no longer leaking. Because what the issue is, there's not enough state money to close these out properly. And then the business idea that these companies have is, okay, we'll on our own dollar, go and plug them. We will then measure the methane that was leaking prior to the work to plug them, and then after the work is done, we'll measure it again and show that there's no methane leaking. And through that process, they can go to, there's third-party, what they call carbon registries, so there's companies out there that will then award them carbon credits, which they can then sell at a price to, you know, large companies, whether that's financial institutions, you know, large, mega-technology companies, so they can generate a profit, while the same point addressing this important need to reduce methane.

6:04 The economics have been pretty fascinating to watch. It's really cool to see a new economic incentive kind of grow out of the ground or out of, you know, the air, I guess, where previously there was nothing. The environmental case for these wells has existed for a very long time. Some of these wells are 100 years old, but the fact that now we have a nice incentive system that's going to push folks to take on these projects and really make progress, it's very exciting and very encouraging. The methane that these wells are leaking is a very, very powerful greenhouse gas that 20 to 30 times more powerful than carbon dioxide. So, very fascinating, very exciting.

6:50 And what we've been able to partner with, and we really at Aon, I know, appreciate your work, Max and the folks at Mosaic, is, in a new industry like this, where, and you know, these companies have all started operations within the last, I'd say, 18 months, and a lot of them right now maybe aren't even plugging the wells, but they're planning to, and they're kind of developing a market to sell these carbon credits, and an important part for them is to get insurance. It validates their business model. It makes people more comfortable doing business with them, both on the state agency level, who would be hiring these or letting these companies come in and plug these wells, as well as ultimately, the selling of the carbon credits, right? So having a component of insurance behind them has been very important, and I know you guys have really worked with us hard to look at, what are the unique risks here, and from a liability standpoint, you know, being able to address these needs and if you want to talk a little bit about how you approach that, I think that'd be helpful.

7:59 Yeah, thanks. This has been really fascinating for me as well. I've really enjoyed the challenge of a new business venture, and what are the risks that it poses. I think that the thing that I think about as an underwriter is, yes, this is something that's new, but in a lot of ways, there's experience that we can draw on. And so taking those past experiences and trying to apply them to this business we've historically written contractors pollution and liability insurance and the markets historically sold control of well policies, but each individually didn't serve the needs of these clients and this new business opportunity and so coming together with you, Jeff and building a new policy that combines those and provides the coverage tailored to the solution needed for well capping and these new projects. It's been very exciting and very, very encouraging.

8:57 Yeah, and for those who aren't aware, traditionally in the well space, you would buy pollution insurance separately, you would buy control-of-well separately. And control -of-well would cover for an operator, for wells that aren't orphaned, right, that are actually operating today. It covers three things, one being pollution, one being the cost to bring the well under control, and that could be fire-extinguishing costs, and taking a blowout, and how do you address those costs? And then, finally, a cost to redrill. But in the orphaned well space, we're not worried about the cost to redrill. So, we've been able to, through language that we work together on, you know, basically combine these policies into one and take a pollution policy and add control-of-well coverage and fire-extinguishing, and I think that's been really well received, because companies in this space that are taking on this obligation to plug these wells, they're worried about the contingent liability they face should something go wrong. These are low-pressure wells. The risk is low, but the risk isn't zero, that something could happen when they're plugging the wells. And obviously, if something happens, that totally changes the economics of their model. So being able to have a policy, an efficient policy, I think we've been able to price it aggressively, and it's been well received by our prospects in the space.

10:28 That's very exciting. And I think the next thing is, how does this market mature? Where do we go next? As you mentioned, these businesses are taking on these goals voluntarily because of the economic incentives, both with government grants, but also the availability of carbon credits with the volunteer carbon credits through Vera and through the registries. And so, what can we do to potentially ensure those credits? And ultimately, how can we find the next well-plugging and similar business venture that's going to continue to innovate and push our market forward?

11:04 No, absolutely. And I know we've already been working on, you know, opportunities on how do we, how do we ensure these carbon credits through, if you, if you plug the well, you get the carbon credits. Oh, but something happens two years later, and there's leakage, and that well isn't properly plugged. Something happened—that could be seismic activity, it could be a variety of reasons. Maybe the well just didn't respond the way they thought it would. And then, how do we ensure those carbon credits so that a buyer of these carbon credits feels secure that was, you know, the credit wasn't invalidated because of leakage. So, while we haven't placed anything on that yet, I think that is the next evolution of the product, and a way to further stimulate this emerging industry. Because if buyers of carbon credits feel there's insurance behind the credit itself, they're much more willing to purchase those and they're probably willing to pay a premium for those credits.

12:07 Jeff, thank you so much. I've really enjoyed talking with you. This is a fascinating conversation, and really it's been wonderful working with you on these opportunities. It's very encouraging to watch the climate transition landscape and these innovative technologies develop. I'm excited to see where this leads next and what we can potentially partner on.

OUTRO

12:26 Thanks for listening. Feel free to download, follow and share on social and recommend us to colleagues and clients. See you here next time for another Mosaic Moment.