Addison,
I apologize for the long delay in my response. We have been juggling many things so my hands have been full. It wasn't until recently that I've had a some time to dive into the details with regards to your ZDDP/Moly inquiry. I have attached a pdf version of a PowerPoint presentation, by Infineum (a well established and innovation acquiring organization in the lubricant additive market niche), with background information about employing Moly (particularly organo-molybdenum) as a friction/wear reduction additive. There is an emphasis on deploying these additives in lubricants that are used in systems with DLC coated components, as well as the beneficial synergistic function of friction reduction and wear reversal. These results are more commonly observed with the organoMoly compounds in combination with hydrogenated DLC coated surfaces. The most effective concentrations seem to be below 600 ppm, although lower concentration require longer activation times and higher temperatures to achieve a positive result in terms of wear and friction reduction.

Please feel free to browse the literature in the references and let me know if you have any questions or concerns. I have also attached a pdf version of an European patent filed by Infineum for your curiosity. There are a few details regarding the compatibility of lubrication regimes employing Moly/zddp and DLC coated components (which I highlighted for ease of finding in the long technically dense document).

There is a slight difference in the type of DLC coating application methods leading to varying characteristics of the DLC structure. TriboTEX is an *in-situ* forming DLC coating. The simple definition of the differentiation is that unlike other DLC coating methods, which require an avenue for carbon deposition onto the interface surface during the final finishing steps of fabrication, the coating forms during operation by 'growing', through catalyst-initiated attachment to the underlying nano-sheet substrate, an amorphous carbonaceous capping layer, which organizes into an sp2-sp3 DLC structure. In comparison to the conventional types of DLC coating the isDLC (*in-situ* Diamond-Like Carbon) is most similar to the hydrogenated DLC coatings. One key difference is that due to the nature of the MHS structure this DLC coating becomes highly impregnated with silicon and is often referred to as a silicon-rich, hydrogenated DLC.

There should not be any issue with usage of higher concentration Moly and ZDDP in combination with DLC coatings resulting from the application of TriboTEX nano-sheet MHS additives. The synergistic results are mostly observed when organo-metalic variants of moly are deployed AKA MoDTC (Molybdenum DialkyldiThioCarbamate). The most prominent improvements in friction/wear reduction performance are observed when lubricated component interfaces are coated with hydrogenated DLC coatings.

However, I would caution you that it is unlikely that you can continue to increase the performance of the lubrication regime by selectively increasing Moly content in the oil. Additional ppm will not yield the same proportional improvements in performance above an optimal level (containing the ZDDP concentration below the poisoning threshold of the catalytic converter and Moly content somewhere in the range of 200-600ppm). As

with all mechanical systems there is the constraint of diminishing returns that accompanies all material focused improvements in performance.

Our initial exploratory research emphasized the potential applications of our product an additive replacement candidate for a very simple reason. MOST additives are toxic, particularly to aquatic life. **CURRENTLY APPROXIMATELY 50% OF ALL LUBRICANTS, SOLD IN THE GINORMOUS GLOBAL MARKET, END UP IN THE ENVIRONMENT!!!!!** We think that innovative and new technologies should be oriented towards improving the existing status quo and the compromise-based equilibrium macroeconomics encapsulate around us.

I wanted to ask you a few questions, if you do not mind…

- As an automobile enthusiast, how did you acquire such deep understanding of the cutting-edge technologies in lubrication?
- The Prius and the Mustang are on the completely opposite sides of the 'consumer automobile' spectrum… which vehicle do you 'deploy', for which occasion? Or are you saving as much as possible on fuel during your commute so that you can buy the top notch everything for the 'fun' ride?
- How many miles do you have on the vehicles? Have you done any quantitative before and after assessments of TriboTEX coatings? Would you be interested in that?
- What do you do for a living? It seems that you have received some form of science based or technically inclined education?

Thank you for 'recommending this surface reconditioned to anyone you meet'. I appreciate you for spreading the word about our products. Please feel free to contact us with any additional questions you may have. We would be glad to hear your feedback with regards to other aspects of the TriboTEX brand (website, advertising, customer outreach, packaging, name, etc). Our goal is to better understand our customers.

I hope that I was able to provide the info you were seeking.
Warm Regards,

Vladimir