



MACALESTER COLLEGE

Ministero dell'Ambiente
Direzione per la Salvaguardia Ambientale del Ministero dell'Ambiente e della Tutela del
Territorio e del Mare - Divisione IV
Attenzione: Concessione Ombrina Mare
Via Cristoforo Colombo, 44
00147 - Roma

Dear Mr. Giuseppe Lo Presti:

I am writing to you to recommend that you deny authorization to the drilling permit d30 BC MD, as filed to your office by Mediterranean Oil and Gas, based in London. These permits would allow a British company to drill the Adriatic for what most likely will be heavy sour oil, about 25 km from shore in one of the most beautiful seas of the southern Adriatic, in Abruzzo. These operations would be the beginning of the transformation of the Adriatic coastline into oil-rig infested waters.

Oil drilling has many harmful ecological and environmental effects. The process of drilling and extracting oil is complex and leaves many opportunities for error or accidents. The piping used to transport and extract oil is made of metals, which can corrode. This corrosion causes pipes to rupture contaminates the land and waters which surround it. If the pipes do not rupture, contamination is still eminent via the large waste pits, often left unlined and open. Dust particles left from drilling may coat the surrounding areas, and flames from burning the natural gas found in oil fields cause air pollution. Lastly, oil spills, accidents, and illegal dumping of oil barrels and produced water lead to devastating ecological and health consequences that can last for decades. Many of these chemicals are detrimental or deadly to animals. Entire ecosystems can dissolve as a result of oil contamination.

As a result of toxic ingestion, people may suffer from skin and chronic headaches. Fainting spells, vomiting, chronic diarrhea, headaches and unknown skin infections are common symptoms for those impacted by oil extraction. Long term health effects include: lung disease, liver and kidney damage, damage to the nervous system, malformation, brain damage, mis-carriages and many other devastating chronic conditions.

Water produced by oil drilling, or "produced water", contains arsenic, as well as cadmium, mercury, lead, zinc and copper. These heavy metals are toxic to humans and animals, even in proportionally miniscule concentrations. These chemicals and metals are not only toxic to humans, but to animal species as well, since they bio-accumulate in living organisms. If consumed over time, the concentration of the chemical increases in



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comparison to the concentration in the surrounding environment. Mercury, for example, will accumulate in the tissue of organisms faster than it can be expelled.

We have all seen the devastation caused by the massive BP oil spill in Louisiana four years ago, prior to that of the lesser known, but still devastating explosion in Australia, where the Montara oil rig released millions of gallons oil uncontrollably for more than two months. Similarly, there have been many other spills at sea that went unnoticed by international media. We urge the Ministry for the Environment to common sense and deny the approval of oil infrastructures along the Adriatic coastline.

Having visited Louisiana a number of times over the course of my academic career as a mathematician, and for many years having closely followed the environmental challenges faced in the United States, I am keenly aware of the dangers of off shore drilling and the need for energy production from renewable resources.

Sincerely,

Chad Topaz
Associate Professor of Mathematics
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St. Paul, MN
USA