

## AFFIDAVIT

My name is Lorrie Williams. I am submitting this statement without any threats, inducements or coercion, to Shanna Devine, who has identified herself to me as an investigator with the Government Accountability Project. My boyfriend and I work in the crabbing industry and live in Ocean Springs, Mississippi. Since the oil spill we have stopped crabbing due to concerns with the chemical contamination of the crabs resulting from the oil spill, as well as the dramatic decline in the catch. Our catch fell by more than 50 percent from 2009 to 2011, and the price for crabs per pound fell by more than half from 2009 to 2011. Since the spill my family and I have had to refocus our attention on our health, because we are experiencing severe health effects associated with exposure to the chemicals from the oil and dispersant.

### 1. BEACH UNPROTECTED

Our beach, Lake Mars Gulf Park Estates (Lake Mars) in Ocean Springs, was one of the first affected. We live two blocks north from the Mississippi Sound ("Sound"), which spans from Louisiana to Alabama. The Sound is separated from the Gulf of Mexico by a series of narrow islands and sand bars, and it receives Gulf water through several passes. We had put our crab pots out on April 16, which was the beginning of the crabbing season. On April 30 the media reported that all crabbers needed to remove crab pots from Mississippi waters, because the city was going to deploy boom – the tarp used to skim, isolate and collect spilled oil. They did not close the crabbing until July 1, three days after the oil arrived. They were closing it in sections, so in one 20 foot stretch it was closed and 20 feet on the other side it was opened. No boom was deployed, and the oil hit shore on June 26, 2010.

Through local news I learned that on June 24 Gene Taylor, our congressman at the time, was conducting an aerial view and he saw the oil coming on shore. It was coming through Dog Keys Pass - a cut in between two islands – but he couldn't get a hold of anyone to deploy any boom. Also, there were very rough seas when the oil arrived, which made it difficult to deploy boom. A week after the oil hit, only 200 feet of donated boom was deployed over two miles of beach. For a week in August 2010 the beach was lined with thousands of baby dead crabs that looked like they had been soaked in bleach.

### 2. IMPACT ON SEAFOOD INDUSTRY

I have lived here in the same location for 20 years. My boyfriend, Bubba, has lived in Ocean Springs his whole life and he is 47. He has worked in the seafood industry since he was four years old, and he is 47. I have worked in the industry since 2007. In the Gulf crabbing industry, about 75 % of the catch is shipped to the East Coast and West Coast; however, most Gulf crabs go to the East Coast. We sell the Blue "Jimmy" Crabs to Maryland and they are sold as Maryland Blue Crabs. The largest amount of Gulf crabs and seafood is supplied to the East Coast in the summer months, when tourism is big in Ocean City, Maryland and the New Jersey and

*Lorrie*

Delaware shores. This raises serious questions as to whether contaminated Gulf crabs are currently being shipped to the East Coast and other parts of the country.

Crabbing was the last seafood to reopen for catch, on August 24, 2010. Crabbers went back out, but the catch was not good and everyone we knew couldn't find a buyer. The FDA was reporting that it was safe to crab, but when you have a sharp decline in catch it is clear that something is wrong. You can crab year round, but usually our crabbing season lasts from mid June through the second week of October. That is when all of the Gulf crabs come into the Sound to go into estuaries and start laying their eggs. The Gulf crabs are a beautiful blue color; however, we didn't see the Gulf crabs in 2011 and that is our most lucrative crab. The crabs that we did catch were from the Sound, and they were in bad shape (detailed below). I believe that all the crabs that got killed from the spill in 2010 and all the babies that washed up on shore should have been our season in 2011.

During the summer of 2009 we were catching 800 to 1,200 pounds of crabs a day. We made approximately \$1.00 per pound, and our net profit for July, August and September in 2009 was \$14,000. After the oil spill, we returned to crabbing in May 2011 and our catch was never more than 400 pounds a day. Louisiana and Mississippi couldn't supply enough crabs to the buyers in Alabama, so they cut us off. In 2011 Bubba and I were one of 11 crabbers supplying for a seafood processor in Bayou La Batre, located Mobile County, Alabama. We were all put on shutdown because we could not supply enough crabs, and in September 2011 the table switched and the processor began buying crab from North Carolina. It is devastating, because before the oil spill September was one of our busiest months for crabbing. We stopped crabbing in September 2011 all together, because we were losing money. The price of Mississippi crabs per pound dropped from \$0.95 in 2009 to \$0.35 in 2011, and by the time we paid for bait and gas to transport the crabs we were in the hole.

This predicament is widespread throughout the Gulf seafood industry. Riki Ott, a toxicologist who researched the health and environmental impact of the Exxon Valdez oil spill, predicted that the impact to seafood would be seen within three to five years. Within a year and a half we are already seeing huge declines in catch across the seafood industry. In 2010 during the oyster season the Mississippi Department of Marine Resources (DMR) released that 89% of oysters were dead due to the oil spill. Shrimpers are also barely catching anything. At one point Alabama crabbers came to Mississippi to crab because their catch was low, and they couldn't get anything. For one week between July and August, 2011 our whole catch was dead. It wasn't just crabs; there were dozens of dead fish floating to the surface, including flounder, black drum and stingrays.

In 2011 we reported a total of three dead sea turtles and a dead dolphin; Bubba has been crabbing his whole life and he has only seen dead sea turtles once or twice, before the spill. In August we found a dead sea turtle at Lake Mars for the first time. We reported to the Mississippi Department of Marine Resources (DMR) and they responded that it was caused by low oxygen

in the water and some kind of mysterious algae bloom. Normally when there is oxygen depletion in the water, also known as red tide, it is reported on the news. That did not happen in this case. In addition, we were speaking with crabbers along the coast pulling up dead crabs, and red tide does not take place throughout the whole coast at the same time.

### 3. CRABS WITH PARASITES AND BLACK LUNGS

From May through September 2011 we crabbed for about 90 days. In October and November 2011 we crabbed for 10 days as consultants for local attorneys. In the years before the spill we could put our crabs in a box all day and they would not die. In 2011, we had mortalities within 45 minutes of taking the crabs out of the picking tray, putting them in an iced box and taking them to the processor. We can't sell the crabs if they are dead. I have a crabbing license for our crabbing boat and we sell to processors. Some of the crabs would have black thick stuff on them.

When they reopened crabbing we pulled a few crabs and brought them home. We wanted to know what the conditions of the crabs were. Our attorney told us to open them, see what is inside and video tape it. When we did, we smelled petroleum and there were hundreds tiny pink two headed creatures eating crab lungs from inside of the crab's body out.<sup>1</sup> Since then we have opened several oiled crabs with parasites. We never saw parasites in our crabs before the spill, but some crabbers from Louisiana told me that even before the spill, they would sometimes find parasites in crabs that were in a dirty environment. In 100 pound box, 10% of our catch was visibly in poor form.

When crabbing was re-opened in 2010 we would not crab, because we had too many food safety questions. Mississippi Governor Barber was adamant that everything was fine, and a public panic was not necessary. His stance throughout the spill was that the spill won't be harmful to the environment or seafood. In June 2010 the University of Southern Mississippi Gulf Coast Research Laboratory (GCRL), which is located in Ocean Springs, tested baby crab larvae. The head of the research lab announced that the crab larvae contained oil droplets.<sup>2</sup> Since then, no one has said what happened to the crab larvae; did they die or live? When I pose that question or other food safety concerns to the DMR at public meetings, I can't get a clear response.

In the summer of 2010 when crabbing was closed, I approached DMR Director Bill Walker about crabs with black lungs. He tried to convince me that the black lungs were normal, because they came from mud. I told him they came off of Barrier Islands which are all white sand. We kept going back and forth and I finally told him, "If you have any more questions for me, talk to my attorney." He responded, "Who are you suing, us or BP?" I just replied "Talk to my attorney." On September 10, 2010 during a public meeting for fishermen, I asked Mr. Walker

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<sup>1</sup> LorrieofOceanspring. "Blood Beach Blue Crab Covered in Oil and Parasites." YouTube. Sept. 6, 2010. <http://www.youtube.com/watch?v=J7cpYf8MsEY>.

<sup>2</sup> Geoff Pender, *Oil Found in Gulf Crabs Raises New Food Chain Fears*, McClatchy Newspapers, July 1, 2010, <http://www.mcclatchydc.com/2010/07/01/96909/oil-found-in-gulf-crabs-raising.html>.



about the prospect of our catch being chemically contaminated from the dispersant Corexit. He explained that they were not testing for dispersants in the seafood. This greatly concerns me, because people are still pulling out crabs with orange brown substances. It is normal for crabs to have mud on them, but this is something different. When I was crabbing I could scrape this substance off the shell. When I tried with a hot knife it scraped off like wax.

It was depressing to go out and work for six to eight hours, not make any money and witness the devastation of the crabbing industry. Crabbing mentally destroyed me, because Bubba and I were not going to eat the crabs, yet we were crabbing to sell them to the public. We were seeing the crabs with oil and parasites in them, yet we had the FDA, NOAA and DMR telling us they were perfectly safe to sell and consume. How can the government and BP deem the seafood safe after crabbing was re-opened within six weeks of when the Macondo well was plugged? How can they announce it is safe for human consumption if we don't yet know what the effects of the chemicals are?

The only reason I began crabbing in 2011 was because I had to prove to BP that our catch had declined. In order to get BP compensation under the Gulf Coast Claims Fund (GCCF) for loss in revenue (detailed below), I had to show taxes prior to the spill and records from 2010 and 2011. We also returned to work in order to pay our medical bills. My two sons, Bubba and I fell sick within months of the spill (detailed below).

#### 4. GCCF NIGHTMARE

The GCCF filed my crabbing boat as an individual, for my business claim to demonstrate loss of income. They would not let Bubba file a claim, because he worked on my boat and we lived together. In August, 2011 I turned in paper work to the GCCF that showed BP owed me \$78,000 for September 2010 through August 2011. I had received a check from BP \$11,600 to cover my losses from April, 2010 through August 2010. I felt that first compensation was just. Then they switched to the GCCF, and it was a very difficult process to file a claim. I went into the GCCF office and did everything the representative told me to do; I added the cost of bait, fuel, profit, and then I broke down my losses for each month. It took me weeks to put it all together, I turned it into GCCF and the representative offered me \$5,000 based on what I provided. I was stunned by how low it was, and I did not accept it. Then he explained that the problem was that the GCCF mistakenly filed my claim as personal, not business. I gave him additional paperwork and he changed the claim to business.

Several days later a different GCCF representative called me back and said that they needed to process my claim in a different way from how I was initially instructed. When it changed from personal to business I had to write a hardship letter, which is included in this affidavit as Exhibit 1. In the letter I explained that Bubba and I run our household, and we are losing our home. I explained I don't have time to continue to wait for my claim to be processed because due to our loss in income, we could not meet our mortgage payments and we were going to lose our house.

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I feel that they saw I was between a rock and a hard place. The GCCF representative told me that a \$25,000 payment could come in a week, and I took it. I regret taking it now, because it cannot fill the vacuum left by the spill; there is no seafood, there are no crabs to catch. This is the reality throughout the Gulf now.

## 5. COREXIT SPRAYING

We have been gulf residents for years and never saw C130s flying around here before the oil spill. Throughout the summer of 2010 it smelled like petrochemicals whenever we walked outside. The federal government and BP announced that they stopped spraying in July 2010. However, throughout the spill and continuing to this day, C130 planes that are used to spray dispersant fly over our house at low levels. On October 13, 2010 I was sitting in front of my house and I heard a horrible noise, then I realized it was C130s flying over us. I ran to my truck and I could see a fine mist hitting the windshield. The plane went toward Lake Mars and circled the Sound at low levels.

Bubba, my then 10 year old son Noah and I tried to follow the planes and videotape them in order to get evidence if they were still spraying. We were sitting in the back of the truck and the mist covered Noah's eye glasses. In the video you can hear Noah say, "It is on my glasses."<sup>3</sup> I believe they were spraying Corexit. An investigative journalist came to our home a few days after in mid October 2010. Whatever they were spraying had hardened on the truck's window, however, the journalist took samples from our pond. He also took samples from the beach at Pass Christian, Mississippi. The lab results of the samples came back positive for the chemicals found in Corexit. The lab results are included in this affidavit as Exhibit 3.

## 6. HEALTH IMPACT

Noah, Bubba, my older son Dustin and I were noticeably sick by July 2010. However, until August 2010 we didn't realize that our health effects could be attributed to exposure to the chemicals in Corexit. I wanted to know why we were suddenly developing the similar health problems. I began researching the health symptoms associated with the chemicals from the oil and dispersant and they mirrored what we have experienced (detailed below). Through the support of chemist Dr. Wilma Subra and the Louisiana Environmental Action Network, we got our blood tested. On December 6, 2010 Noah, Bubba and I took a Volatile Solvent Profile test, which is used to identify and measure chemicals in the blood. We had to drive to Destin, Florida to see a physician who would draw our blood for the test. Our lab results are included in this affidavit as Exhibit 4. I was told by Dr. Subra that Noah tested higher than 300 adults for chemical levels in his blood. Bubba's results were lower than mine and Noah's, but still outside the range of chemicals that should be found in his blood.

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<sup>3</sup> LorrieofOceanspring. "Plane That Went Over Our Home." YouTube. Oct. 13, 2010. <http://www.youtube.com/watch?v=jgFUiliRhno>.

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Before the spill took place, we would go to the beach on a daily basis. It was only two blocks from our house and it provided our livelihood. After the spill that all changed. I still went out there to document the spill, but we stopped going from recreational use. From May 2010 through August 2010 when I walked out my back door it smelled like I was putting my head in a used oil can; the oil smell was that pungent. After residents started asking officials and the media questions about the safety of the spill, because everyone along the coast smelled petrochemicals, the local news station announced, "If you have any respiratory problems or compromised health, you need to stay inside." The closer the oil came to hitting the shore, the worse our health symptoms got. I had been on the beach almost every day taking photos of the oil before my health got too poor.

Noah stopped going to the beach in July 2010, after he woke up one morning and his nose was gushing with blood. He won't go outside anymore; he says when he does, it makes him sick. It is a horrible way for a kid to live, but we live on a corner so the side road is a direct shot to Lake Mars. There is nothing to obstruct the chemical smell. I have learned that one of the symptoms from Corexit exposure is brain fog, when the short term memory is affected. When Noah returned to school in the fall of 2010 he had a very difficult time. He kept saying he couldn't remember what he was learning. I took him to a child psychologist's office and they put him on medication for Attention Deficit Disorder, which did help him focus. However, Noah did not have those difficulties in school the prior year. After the oil spill we both had difficulty remembering things. I call it "Corexit Brain." We would get disoriented and our brains would go into a fog like state. Sometimes I still experience this.

Bubba developed sinus infections and a bad cough, big white scabs all over his arms as well as boils behind his ear, but he does not have health insurance. The boils start out as bumps, and when you pinch them puss comes out. Currently he has eight of them from the back of his ear down to his jaw bone. I have them all over my chest. When I bump or scratch myself now, I end up with blood spots.

My daughter had a baby, Avereigh, on June 7, 2010. Before I realized how dangerous the air was and that young people with compromised immune systems shouldn't be outside, we would take her on the porch with us every morning. Since Avereigh was born, she has been to the pediatrician at least two to three times a month. She has hand-foot-and-mouth disease, a respiratory condition known as croup, upper respiratory infections and sinus infections, ear and eye infections, and yeast infections in her mouth and private parts. They moved to St. Augustine, Florida for two months and her infections cleared. They returned in March 2012 and Avereigh's problems have returned. When they were in Florida, Noah, Bubba, Dustin and I visited them for six days, and during that time we all felt better. We had our life force back. Then when we returned to the Gulf our health symptoms began to repeat themselves.

Noah and I both have asthma but it got worse after the Deepwater Horizon explosion. By the second week of May 2010 we had to go on additional breathing support, and the doctor has

*John*

doubled Noah's asthma medication. We have always had a nebulizer available. If Noah had a cold we would give him breathing treatments for a few hours every few days and he would be ok. During the spill we were both doing breathing treatments every four hours. It lasted from May through the summer for Noah, and the two weeks in May for me. Since this began, we have been on antibiotics and steroids back and forth and I believe it compromised our immune systems.

We have stopped even walking on the beach because it tends to exacerbate our symptoms. However, in March 2012 we took a journalist to the beach. Immediately after going out there, Bubba was sick for three days, I got sores in my mouth and my throat was sore. It used to be that if you had a head cold and went to the beach, the salt water would clear up your sinuses. Now it doesn't do that, had opposite effect.

## 7. HOSPITAL RESPONSE

Noah and I have Medicaid but it only pays for 12 visits in a year and renews each July. From mid May to the end of June 2010 we used all of our visits. My son Dustin was our deckhand when we were crabbing and he went on the boat with us several times after the spill. We took him to the Emergency Room (ER) in July 2011 because he got a hard cough and started coughing up logs of bright red blood, as if his throat had been cut up. The ER said they couldn't find anything wrong and he needed to see a lung specialist, but he doesn't have insurance. He also got a horrible urinary tract infection that lingered for three months in the summer of 2011, which the doctor said is very rare for males to develop. In November 2011 he was raced back to the ER because he was coughing up blood again. During his first visit they gave him antibiotics, and they put him on antibiotics again.

My nurse practitioner has seen my health decline and she believes it is from the spill. There isn't a day that goes by that I feel good. I was perfectly healthy before the spill and now I feel as if I am withering away to nothing. I was 179 pound in February, 2010. As of December, 2011 I weighed 126 pounds. My 9 year old golden retriever, Cajun, lost a lot of weight too. Within a month he went from 100 pounds to approximately 50 pounds. The veterinarian said that he had no bladder by the time we put him down. She said normally it would be a progression before he passed, that you don't lose a dog to cancer in six weeks. I would have had an autopsy done if we had the money.

In October 2010 I started having really bad pain in my lungs. I was feeling poorly and coughing up a thick yellow puss-like substance, and my mouth was raw with sores. On December 21, 2010 I went to the ER at Ocean Springs Hospital and they told me I had ammonia. A week later I went to my doctor, who put me on antibiotics and steroids. My doctor started giving me Avelox, which is a very strong antibiotic. You take it for seven days. However, whatever infection I had kept coming back. Bubba took me back to the ER and the doctor looked at my lungs from based on my medical records from March 2011 to December 2010. He then told me that no ammonia

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would last that long. He explained that I had a mass in my lung, which had grown from the size of a golf ball to a softball, and my lung had collapsed in a location very unusual for infections and masses. He told me to stop taking steroids, because they would make me weaker. He gave me a CAT scan and referred me to a lung doctor.

I picked up the CAT scan disk at the hospital, and the receptionist gave me a copy of the written diagnosis. My liver was mildly fatty. In February 2011 I took it to a lung specialist, Dr. Rotenberg in Ocean Springs. He looked at the disk I gave him, listened to my lung and told me my lung had collapsed, there was a mass in it and I needed a biopsy. I said "Sir, I think it is caused from chemicals in oil spill." I said, "I have very high levels of the Volatile Organic Compounds in my body." At that point it seemed like he understood my concern; the expression on his face led me to believe that I wasn't the first to identify chemical exposure from the spill. He took a sample from my lung for testing, and I had a biopsy done.

Two weeks later Dr. Rotenberg called and said that the results were in. When I went to his office he said there was no infection, there was no mass and my lung was not collapsed. He even told me that I don't have breathing problems. I was stunned; I responded, "I can barely get out of bed in the morning" When I saw my nurse practitioner the following month, she listened to my lungs and said something in my left lung is still have problems.

Seven months ago I started having a burning pain in my stomach, which continues to this day. It feels like someone took a hot pipe and jammed it into the right side of my stomach through my back. I got scanned and was told it is acute pancreatitis. It comes on gradually, or suddenly hits me. Sometimes I will go from sitting normal to being doubled over. I can't eat normally. When I have an attack I can't consume any food for 24 to 48 hours. The pancreas is used to break your food down, and when it does it regulates the insulin in your body. In general I have low blood sugar. However, now it is constantly fluctuating and is high before attacks. I have to take enzymes before I eat to regulate my insulin and help me to digest the food; if I don't then I can barely eat. I will have to have a throat and a lower gastrointestinal endoscopy. Living this way is miserable.

I am trying to get all of my medical records gathered for a medical claim. From what I understand, anyone who lives south of Interstate 10 will be able to file a health claim through the settlement between BP and the plaintiffs' attorneys. My concern is that, like the GCCF, this will be a new BP compensation system that does not account for the people most affected by the oil spill. At the beginning of the spill BP gave money to everyone, from Walmart to Wafflehouse employees, but the seafood businesses that were most affected have been starved out. At this point we are most concerned about our health.

## 8. CENSORING

Mississippi announced on July 2, 2010 that all beaches were open to the public. For tradition, on July 4, 2010 we drove to a local recreational beach. There had been cleanup workers on the

*Jae*

beach earlier in the day scrubbing oil off of the rocks. When we arrived, two West Jackson County Sheriff's Department officers were blocking off the entrance and said that we couldn't enter because it was closed for BP. I got out of my car with my camera and one of the policemen told me to get back in my car, that I was not allowed by the water. I called the sheriff's department, and the dispatcher informed me that the officers I spoke with were getting paid by BP. I responded that they shouldn't be wearing county uniforms. At that point I started paying closer attention to the security presence at our beaches.

A few days after that incident, I went to Rock Jetty at Lake Mars to take pictures of oil. It was a thick nasty orange and brown rainbow colored oil. Everything it touched it killed. I have been walking this beach for 20 years and I have never seen anything like it. I was approached by BP and Coast Guard officials. The BP representative approached me and asked what I was doing. I told her I was documenting the oil spill and she asked, "Are you finding anything?" I said, "Yes, there is oil all over the place." She left to speak to a Jackson County worker in a truck. Within minutes an officer with the Jackson County Sheriff's Department told me that was told that it was closed and I couldn't be there. It always seemed like when I took photos either the Mississippi Department of Environmental Quality (DEQ), the Coast Guard, BP or the sheriff's department showed up. There were a lot of families on the beach that day and everyone had to leave.

I called the mayor's office in August 2010 to report oil that I spotted. They asked where I saw it and I said "You can come over and I will show you thousands of photos that document the oil." Two guys from DEQ came to my house and I started going through photos with them. Neither said much, then they got into their vehicle and left. Several days later I was at the beach and I spoke with a different DEQ representative. I raised concerns with him about oil that I continued to see. He explained that it was just deteriorating plant matter; DEQ stated that repeatedly after the oil spill when residents raised concerns about oil. When he said that, I mentioned that I had documented the oil, and two other DEQ representatives had come to my house to view them. He responded that they would not have visited my home. I said, "They came in a DEQ truck with DEQ shirts. How are you going to tell me that they were not DEQ representatives?" He brushed it off. However, two days later this same DEQ representative who I spoke with at the beach began circling my block daily. He stopped driving around my neighborhood around the same time that we had to put our dog down.

*Lew*

I have read the foregoing nine page statement, and declare that it is true, accurate and complete to the best of my knowledge and belief.

Executed on April 12, 2012.

George Anderson

Subscribed and sworn to before me  
this 24 day of April, 2012

Michelle Dupree

Notary Public



My Commission expires on: Jan 4, 2013

## AFFIDAVIT

My name is Michael Robichaux. I am submitting this statement, without any threats, inducements or coercion, to Shanna Devine, who has identified herself to me as an investigator with the Government Accountability Project. I am a 67 year old Ear, Nose and Throat (ENT) physician. My practice is located in Raceland, Louisiana. Raceland is approximately 60 miles from the Gulf of Mexico. Since the summer of 2010, I have been treating scores of patients, from Florida, Alabama, Mississippi and the Louisiana coast, who are the victims of exposure to chemicals produced by the Deepwater Horizon tragedy. Most of the individuals I have treated do not have health insurance and the majority of my initial work was done pro bono, as many of these victims were too ill to work and without the resources to obtain medical care otherwise.

One of the truly amazing observations I made after seeing an ever-increasing number of patients was that the symptoms being described were different from anything I had ever observed in over 40 years as a physician. Throughout that span I have seen the consequences from many oil spills. Something was different here. Another readily apparent observation was that the patients from Florida, Alabama, Mississippi and Louisiana all had remarkably similar symptoms. After seeing firsthand the tragedies that have resulted from exposure to the waste products of the spill, I feel it is my duty as both a physician and citizen of our state and nation to alert the public to the horrendous health problems I have been observing.

### 1. BACKGROUND

I have been in practice as an ENT physician in Raceland, Louisiana since 1975. Before me, my father was a physician in our community for over 30 years. I attended Louisiana State University (LSU), and then LSU Medical School. I have been a community activist for decades, fighting for stronger public health and environmental policies. My wife was the principal chief of a 17,000 member Native American tribe, the United Houma Nation, for 13 years. She was still Chief when the Deepwater Horizon debacle occurred. She has since retired from this position. When my wife became principal chief in 1995, I ran for the Louisiana State Senate. I was a senator for a term and a half. Trying to maintain a medical practice and serving as a public official took a terrible toll on our finances, and I was forced to resign during my second term in office.

Following Hurricanes Katrina and Rita, storms that left approximately half of the population of the United Houma Nation homeless for months, my wife and I opened a resource center at our home, and we had as many as 80 people staying with us at a time for approximately eight months.

During the first months following my awakening to the health crisis being experienced by many of the people in our community who were exposed to chemicals associated with the Deepwater Horizon tragedy, I was able to supply little more than band aid therapy and moral support for the myriad of serious symptoms being experienced by a group of very ill patients. The bottom floor of our home served as a makeshift clinic for the majority of these health-related visits.

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In the summer of 2011, I partnered with Marylee Orr, Director of the Louisiana Environmental Action Network (LEAN), and Jim Woodworth, former director of the New York Workers Restoration Project, to create the Gulf Coast Detoxification Project (detox clinic) for sick workers and residents. It was modeled after a treatment plan used for first responders from the September 11 attack, and it is working remarkably well. I am the physician consultant, and I have been present nearly every day since it opened (detailed below).

I have a history in public service, largely in efforts to prevent these public health threats from occurring in the first place. During my time as state senator, I was active at both the local and federal level, and I attempted to remedy an exemption in the law that involved the management of oilfield waste. In 1976, the Environmental Protection Agency (EPA) was given the mandate to regulate the handling, transportation and storage of hazardous waste materials. In the early 1980's, the federal government, bowing to the pressures of the oil and gas industry, provided an exemption to the toxic designation of substances created by the exploration and production of petroleum products. Known as NOW, or Non-hazardous Oilfield Waste, it is a soup of anything and everything found in the oilfield. When an EPA-funded study acknowledged that some oilfield waste was toxic, the original study was suppressed and an edited report was presented to Congress. Under this guise, hazardous materials such as benzene, hydrogen sulfide, lead and cadmium were exempt from the stringent standards required for all other industries in the handling, transportation and storage of these materials.

In 1997, CBS produced "Ed Bradley on Assignment: Town Under Siege." This one hour program examined the damage caused by the NOW exemption, in a small Louisiana town named Grand Bois.<sup>1</sup>

In 1984, the state of Louisiana employed the NOW exception to provide permission for a corporation to dispose of oilfield waste in open pits at a site adjacent to the largely Native American community of Grand Bois, which is about 50 miles from the coast. Carol Browner, head of the EPA at that time, stated in an interview with Mr. Bradley, "The big oil companies got a sweetheart deal," referring to the NOW exemption.<sup>2</sup> From 2009 through 2011 Ms. Browner was the White House director of the Office of the Energy and Climate Change Policy in the Obama administration. At the beginning of the oil spill I hoped to revive this issue and shine some light on it, because the oil spill waste falls under the NOW exemption. Unfortunately, I was not able to make any headway with her office."<sup>3</sup>

This exemption has greatly impacted the health of our communities, now compounded by their exposure to waste from the spill. There are several Louisiana coastal communities involved in the oil spill. Grand Isle, Port Fourchon and Venice are three such communities that share proximity to the spill, a large number of citizens with exposure, and economies that incorporate the multiple aspects of the oilfield and fishing industries.

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<sup>1</sup> Walter Goodman, *It Smells, But Does it Also Kill?*, New York Times, Dec. 23, 1997, available at <http://www.nytimes.com/1997/12/23/arts/television-review-it-smells-but-does-it-also-kill.html>

<sup>2</sup> *Id.*

<sup>3</sup> Details of this issue can be obtained in a Senate report I prepared. See Michael Robichaux, Report of State Senator Mike Robichaux to the State Committee on Oilfield Waste (1998) available at <http://senate.legis.state.la.us/senators/Archives/1999/Robichaux/topics/oilfield.pdf>





The vast majority of the deep offshore drilling in the Gulf of Mexico originates out of Port Fourchon. Port Fourchon is located at the mouth of Bayou Lafourche and is the epicenter of the most active energy corridor in the United States. There is an additional port, the Louisiana Offshore Oil Port (also known as LOOP), located 18 miles south of Grand Isle that can accommodate the largest supertankers in the world. These huge tankers can download their oil safely offshore, avoiding any possible collisions with other vessels and near shore structures. The oil is then sent through pipelines to onshore salt domes, and transported through additional pipelines to refineries throughout the United States.

Following the Deepwater Horizon tragedy, the entire coastal fishing industry was unable to function. BP, in an effort to clean up the horrible environmental crisis it had created, hired many of the fishermen and utilized their boats to clean up the oil that was attacking the Louisiana coast. The program was called the Vessel of Opportunity or "VoO" Program.

Initially, LEAN – the oldest and largest environmental group in the state of Louisiana – purchased boots, gloves, Tyvek suits and respirators to be worn by individuals working the spill. Amazingly, BP company policy resulted in the boat owners and workers being threatened with loss of their jobs should they wear respirators while working for the company. Even BP employees working the oil spill site were denied the usage of these protective devices. This was shared with me on several occasions by my patients.

As a populist who has lived on the bayou all of his life and whose patients are mostly from the southern part of the parish, I know thousands of fishermen and oilfields workers who were involved in cleaning up the oil spill residue. In November 2010, long after the spill was contained, Marylee asked me to draw blood for a commercial diver from Mississippi who had fallen ill since diving in the oil plume in the Gulf of Mexico. I agreed to do so, and met with this gentleman and several others referred by Marylee at my office in Raceland.

## 2. THRONGS OF SICK PATIENTS

Although I was still skeptical that their health problems were related to toxic waste exposure from the spill, I drew blood on several sick individuals to see if there were any patterns between chemical levels found in their blood and their health problems. What was interesting at the time was that none of these patients were from the community that I normally serve; they came from throughout the Gulf Coast. Additionally, every one of these patients had very convincing stories to tell, and when I was able to sit down with them and get a comprehensive history, their stories became quite compelling.

I was particularly concerned with the plight of a three year old child. In June 2010 he and his family went on vacation to Orange Beach, Alabama. He had been swimming in an outside pool that was beachside, while workers were cleaning oil soaked booms on the beach. When he returned home he became violently ill, and was rushed to a hospital in Baton Rouge. The doctors at first believed that he was suffering from a severe urinary tract infection, and they even performed surgery on this three year old when they suspected he had kidney stones. After a week or so in the hospital, his father asked the doctors if they would draw blood to see if his trip



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to Orange Beach might not have exposed him to chemical compounds resulting in his illness. They flatly refused to do so, and abruptly discharged him without a final conclusive diagnosis. Even with this history, I was not convinced that the child was ill from this exposure, and I recall being a bit impatient with his father when I was trying to work my way through the throng of people who had come to my office. After seeing several other sick workers and residents exposed to similar conditions, I later realized that this poor infant actually was ill from his exposure. I was soon drawing blood from patients from Florida, Alabama, Mississippi and the entire Louisiana coast.

I quickly began to learn the symptoms that these individuals were experiencing and, amazingly, the symptoms were almost identical for everyone from Florida, Alabama, Mississippi and Louisiana. Some of the information regarding exposure was undeniable, while others had only scant evidence that their illnesses resulted from products of the oil spill. What brought all of these individuals into the same pool was the fact that their symptoms were almost identical, and were different from anything that I had ever observed in my 40 plus years as a physician. Interestingly, other workers and residents who worked or lived side by side with these ill workers and were exposed to the same chemicals had little or no problems.<sup>4</sup>

As I observed these patterns in my patients I was also able to see a positive correlation between their symptoms and blood test results that I had been obtaining through the generosity of LEAN. At this point my feelings went from being skeptical to being extremely alarmed, and I began seeing these patients in a somewhat different light. I learned what questions to ask so that I might obtain information that they wouldn't necessarily associate with their illnesses.

The initial symptoms that many of the victims experienced included coughs, respiratory problems and congestion, along with skin rashes. However, many of these same individuals soon began developing headaches, memory loss, irritability, fatigue and fatigability. Some patients had dizziness and many exhibited blood sugar abnormalities with hypoglycemia. Acid reflux disease, which can produce heartburn, regurgitation and stomach discomfort, as well as other abdominal pains, was also relatively common. Some of these symptoms, such as the chronic coughing that was present initially, cleared up spontaneously for most patients.

Several patients also had a unique neurological disorder that one victim coined, "Stuck Stupid." This "condition" consisted of the patient being cognizant of his or her surroundings, but unable to move or to speak. My first encounter with this phenomenon was in the summer of 2011, when a patient described sitting on his porch while facing his truck. The truck door was open and the motor was running. He could not walk, talk or otherwise move. He described this episode as

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<sup>4</sup> A government report that examined why some veterans became ill and others did not following the 1991 Gulf War explains this phenomenon: "It is well established that some people are more vulnerable to adverse effects of certain chemicals than others, due to variability in biological processes that neutralize those chemicals, and clear them from the body. The enzyme paraoxonase (PON1) circulates in the blood and hydrolyzes organophosphate compounds such as pesticides and nerve agents, converting them to relatively harmless chemicals that are then excreted. Individuals who produce different types and amounts of PON1 differ, sometimes dramatically, in their ability to neutralize different organophosphate compounds." See Research Advisory Committee on Gulf War Veterans' Illnesses, *Gulf War Illness and the Health of Gulf War Veterans: Scientific Findings and Recommendations* (U.S. Government Printing Office 2008) p. 13 – 14.

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lasting for about two hours. His memory of the entire event was quite vivid. He later experienced similar problems in different settings.

Another patient, who lives in Bay St. Louis, Mississippi, described similar experiences. He lived on the coast and near a landfill created to dispose of waste from the spill. He also took his boat into the Gulf periodically after the spill. It was not uncommon for his wife to return home from work to find her husband lying on the floor, unable to move or talk. This gentleman has been unable to pursue his profession as a cabinetmaker due to his illness, and has no medical insurance. He avoids going to the hospital or even to see a physician, as he is unable to pay his medical bills and does not want to lose his home due to medical debts. Probably the most frustrating part of his problem is having a complex symptom that no one understands and an illness that few feel any sympathy or compassion in treating, especially since the treating physicians aren't certain that such a disorder actually exists.

With much urging, I was able to get this patient to prepare a video of his symptoms, as a few months later he went from being "Stuck Stupid" to having full-blown seizures. I have a copy of a video he made while he slept on his recliner.<sup>5</sup> Within a few hours of falling asleep, he experienced a full-blown seizure. This video is a remarkable illustration of the problems that have occurred as the result of exposure to the chemicals associated with the Deepwater Horizon crisis.

In addition to this gentleman's seizure disorder, he also has developed multiple chemical sensitivities (MCS), a condition in which a large number of chemicals can cause exaggerated and severe symptoms in response to their exposure. This disorder is well recognized in individuals who have experienced contact with toxic chemicals. People with MCS are often hypersensitive to household cleaning products and many other materials that contain even small amounts of aromatic chemicals. Additionally, these patients often have adverse reactions to products they commonly used prior to their toxic exposure, such as scented soaps or common household cleaning products like Windex.

In November 2010, my wife and I were visiting with a close friend whose husband had been using his fishing vessel to clean up the oil spilled in the region immediately west of the bayou that ends at Port Fourchon. Our friend stated that she had been quite ill, and doctors at a local charity hospital thought that she had leukemia. Her husband is a fisherman who worked the VoO program. I asked her when her symptoms began. It was immediately apparent that she had been washing her husband's work clothing and was exposed to toxic chemicals through this route. On one occasion his clothes were so soaked with chemicals that she had to throw them out, rather than trying to clean them. Interestingly, while he had worked for 95 days with his boat, his location had little oil present. He actually skimmed oil for less than a week and the oil was heavy for only about three days. However, he explained that he saw planes releasing dispersant throughout the time that he worked on the VoO program.

I obtained a comprehensive history on our close friend, which indicated that she had far more symptoms than she had first indicated. Her husband had never considered himself to be ill. However, I also met with him, and his answers to my questions indicated that he was also

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<sup>5</sup> This video is on file with the Government Accountability Project.

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severely affected by his own exposure. Their symptoms included irritability, memory loss, headaches and excessive fatigue. Both have since been through the detoxification treatment program that I oversee, and they have done amazingly well since that time; the memory loss, headaches and fatigue have subsided noticeably, and the irritability is no longer present.

In a nutshell, common symptoms experienced by my patients include impotence both in young and older men, memory loss, headaches, extreme fatigue, irritability, abdominal cramps, seizures, and a trance like state that many patients and their family members have observed. These symptoms are quite common among workers and even some residents who live along the Gulf. However, until people are educated about the symptoms associated with exposure to toxic waste from the spill, we cannot assume they will make the connection. I continue to witness this disconnect and these symptoms on a daily basis.

In September 2011, Dr. Kaye Kilburn, an 80 year old physician and scientist, came to Golden Meadow, Louisiana and conducted studies on 14 people who had a history of exposure to BP's toxins. Dr. Kilburn is a distinguished physician and scientist, and since 1982 he has investigated chemicals and the human brain. He has published over 250 scientific papers and three books. When he left to return to his home in California, he said, "Mike, I have been doing this my entire professional career, and this is the greatest public health crisis I've encountered in my lifetime."

Since that time Dr. Kilburn, LEAN chemist Dr. Wilma Subra, and I have been attempting to obtain funds to perform objective studies on the victims of the spill and to document the success of various treatment endeavors. One of Dr. Kilburn's proposals is included in this affidavit as Exhibit 1. While our studies would cost a pittance of the amount of money already appropriate for medical issues, we have, to date, been unable to obtain any funds to carry out these studies (detailed below).

### 3. THE GULF COAST'S "GULF WAR SYNDROME"

The post oil spill syndrome (which I refer to as "BP Syndrome") is extraordinarily similar to the symptoms experienced by the soldiers who returned from the 1990 to 1991 Gulf War in the Middle East. Their illness was dubbed "Gulf War Syndrome," and it affected over 175,000 veterans returning from this conflict. Gulf War syndrome is a chronic multi-symptom disorder that has been affecting veterans and civilians since the Gulf War. Its effects were not only experienced by American troops, but also by troops from all of the allied nations that served in the conflict. As was the situation with Agent Orange in Vietnam, many of these veterans were labeled as malingerers, and were denied both assistance and the credibility they deserved after serving their country in a foreign war.

Gulf War Syndrome, and the government's response to this disorder, has proven to be painfully similar to the BP debacle. In both instances, evidence suggests that the illnesses are the result of the ingestion, inhalation or contact with various chemicals to which the soldiers and workers were exposed. The pattern of denial and the efforts to suppress information on "Gulf War Syndrome" and "BP Syndrome" also have been very similar.

In 2008, 17 years after the war had ended, a Congressionally-mandated Research Advisory

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Committee on Gulf War Veterans' Illnesses reported that "Federal Gulf War research programs have not been effective in addressing issues related to Gulf War illnesses."<sup>6</sup> Furthermore, it found that federal research methods were ineffective in addressing the health problems of Gulf War veterans. It concludes, "Substantial federal Gulf War research funding has been used for studies that have little or no relevance to the health of Gulf War veterans, and for research on stress and psychiatric illness."<sup>7</sup>

Like the Gulf War experience, large sums of money have been reserved to perform studies on residents and workers who were possibly exposed to chemicals. None of these studies will have any effect on the health of those individuals who are truly ill at this time, and not a single penny from BP or the government has been made available to actually *treat* patients, many of whom are extremely ill, and some of whom may yet die, from this tragic event. At best, they will be guinea pigs for future lessons learned about exposures that never should have happened in the first place.

#### 4. TREATMENT FACILITY

In January 2012, LEAN, Jim Woodward, my wife Brenda and I began the Gulf Coast Detoxification Program in my family home in Raceland. The purpose of the program was to treat cleanup workers and residents who had become ill since the spill. Mr. Woodworth had managed detoxification programs for many years, including a program to treat the first responders following the September 11, attacks in New York City. My introduction to him began in late 2010 when Marylee Orr gave me a call and shared that there was a foundation interested in treating people who had become ill as the result of their exposure to chemicals from the Deepwater Horizon debacle.

Mr. Woodworth's story was too good to be true, but the documentation of the effects of the program he ran in New York for the 9/11 victims was impressive. Since I was at a loss to be able to do much more than practice band aid treatment for illnesses that I did not understand and for which there was little I could do, I decided to look into the program and see if there were any benefits from its treatment protocol. The patients I had been working with were as desperate as me, and we agreed to work with Mr. Woodworth on this project as we felt that nothing ventured, nothing gained.

One of LEAN's qualifications in partnering with Mr. Woodworth was that we would not have to charge for the treatment; sick individuals are already knee deep in medical bills, and they would not be able to participate otherwise. It costs approximately \$4,000 a person for them to complete the program, and Mr. Woodworth obtained enough money for the treatment of 100 people. We have not charged BP or anyone else a nickel for our services.

My initial skepticism about a program that used nothing more than vitamins, minerals, plant oils, exercise and sweating in a sauna to treat problems that neither myself nor any other physicians were able to treat effectively using conventional medicines was quickly replaced with

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<sup>6</sup> Research Advisory Committee on Gulf War Veterans' Illnesses, *Gulf War Illness and the Health of Gulf War Veterans: Scientific Findings and Recommendations* (U.S. Government Printing Office 2008).

<sup>7</sup> *Id.* at 4

enthusiastic optimism over the results of treatment for the initial wave of patients who entered the program.

The basic concept of treatment used in this program begins with an understanding that many of the toxins that are present in our bodies are attached to fatty tissues. Experience has shown that these toxins can be mobilized by a combination of exercise and the use of progressive dosages of Niacin (Vitamin B3). The Niacin dilates our blood vessels, often causing flushing of the skin, and it assists in shearing toxins from our body's fatty tissues. Following exercise and the ingestion of progressively increasing dosages of Niacin, the patient spends from one to five hours daily in a moderate temperature sauna. Hydration and ingestion of adequate amounts of Sodium, Potassium and other minerals, along with some nut oils, completes the daily nutritional program. Each patient is weighed daily and has blood pressure readings recorded.

Some patients begin emitting odors related to the chemicals that have accumulated in their bodies. This is not uncommon, and is an excellent indicator that the program is working. Manifestations are incidences when the chemicals being eliminated from the body are released into the blood stream, causing some of the same symptoms from when they were first encountered. Once again, these are desirable events, and run parallel to the improvements experienced by our patients.

No prescription medicines are administered during the program, and only a few prescription drugs are allowed during treatment. The most difficult aspect of our treatment protocol is that it requires the participants to be present for treatment on consecutive days for up to a month, and each day requires up to five hours of exercise and treatment in a sauna. Everyone involved in administering this program is required to participate in the program personally. I spent 25 days in treatment and became the program's first graduate.

For the next eight months I was present in the detox facility every day (seven days a week, holidays included), and I had the pleasure of watching miracles unfold. The results of our treatment far exceeded anything I had anticipated, and we made major improvements in the lives of most of our patients. To date we have managed approximately 100 individuals at our clinic, and I have treated probably 50 or so additional people who did not receive detox treatment. It has become apparent that while our accomplishments have been remarkable, there is still much to learn from this disorder and much more that needs to be done to help the victims of this tragedy.

To spend much time discussing our lack of complete remission of symptoms in some patients would not do justice to the amazing improvements we have witnessed. However, there are those individuals who, although much improved, still suffer with significant problems from long term medical damages that are difficult to treat and equally difficult to understand. Additionally, many of our patients have had to return to contaminated environments, and are experiencing problems in those settings. One female boat captain can no longer work on her boat, and her husband and fishing partner must now run their vessel alone.

On the successful side has been the observation that memory loss, headaches, irritability and fatigue experienced by a large percentage of our patients have improved amazingly. Having

been a physician since 1971, I never have had a patient tell me that my treatment made them "Happy." Yet, one of the most common descriptions of well-being that our patients have expressed to us is that by the time they complete their treatment they are genuinely happy. Speaking to family members has confirmed great improvement in irritability, memory, energy levels and overall disposition.

One of our most amazing experiences involved a patient with multiple sclerosis (MS), who was exposed to the toxins through her job supervising the feeding of hundreds of workers assigned to clean contaminated boats. When she first began the program, she could barely walk into the detox facility, and she had to rest immediately upon entering the room. Her first few days of exercise involved being led, hand in hand, by one of the program administrators. However, when she finished the program she was on the treadmill and walking fast for over 35 minutes. Her recovery was nothing short of amazing. And while she revels in her own recovery, she loves to tell the story of her brother, another family member who underwent treatment, and who also had an equally amazing recovery.

As an individual who has been a physician for over 40 years, I haven't seen miracles very often. However, the detoxification program has provided health improvements that have been truly amazing. Some of our more affluent patients, those with insurance and other resources, have described seeing ten or more physicians in their quest to obtain relief from their illnesses. The time and money spent in these quests have been as impressive as the predictable failures of their treatments. Few physicians, myself included, understand the mechanisms of toxic exposure and the manner in which we become ill from these disorders. Even more alien to our conventional thinking is the manner in which people with toxic disorders are treated. Few, if any, groups have seen and treated as many individuals as we have at our modest detoxification clinic in Raceland.

As an Ear, Nose and Throat physician, I have no experience in toxicology or in the treatment of people with chemical poisoning. Yet, three years after the spill occurred, where are the studies being performed to elucidate the true scope of the illnesses being experienced by our friends and neighbors? Who is leading the charge to study the people who are actually sick, as opposed to long term inconclusive studies designed to dilute out the susceptible individuals who have become ill with the overall population who have not suffered by exposure to these toxins? Who is their champion outside of our small circle of donors and the handful of activists who are working feverishly to save the lives and protect the health of these victims?

We have not had any assistance from any of our local, state and federal officials in treating patients impacted from the oil spill. At one congressional hearing held in Houma, Louisiana, Congressmen Charles Boustany and Jeff Landry were in attendance, and they represented many of the victims of the spill. Neither of them bothered to even feign interest by asking any questions of my wife when she discussed what was undoubtedly the most important issue on their agenda - the health of their constituents. They spent most of their time discussing what a wonderful job the Gulf Coast Claims Fund administrator at the time, Kenneth Feinberg, was doing in distributing BP funds to deserving individuals. Their opinions and the observations of these congressmen were not shared by many, if any, of the individuals attending the session.

In Louisiana we have not received any assistance from our Governor. Neither of our U.S.



senators has assisted us. Only one U.S. congressman, Representative Cedric Richmond, has voiced concern over our plight in regard to the health impact resulting from the spill by holding public meetings in underserved Vietnamese communities. The result of our public officials' tolerance of BP's arrogance is that this foreign corporation has planted a chemical weapon in our environment and they have poisoned our waters and our wetlands in a manner that will, in all likelihood, haunt us for generations to come. The ability of our congressional delegation to be able to assist their constituents and to support the people of their respective districts in their battle with a foreign corporation is enormous. Yet, with the exception of Congressman Richmond, they have done nothing to help the victims of this crisis who they allegedly represent.

I would assume that every day these illnesses remain untreated, further physical, neurological and psychological damages will befall the victims of this tragedy. Does no one else see the urgency of our situation? We have been treating individuals who were rendered ill by a foreign corporation - a corporation that refuses to acknowledge the existence of their worker's illnesses and has refused to take responsibility for destroying the lives of many innocent American citizens.

## 5. CLASS ACTION LAWSUIT

(The following discussion is that of a non-attorney's understanding of some of the legal proceedings that have accompanied this lawsuit.)

During the legal wrangling that occurred following the Deepwater Horizon debacle, a federal judge, Carl Barbier, was given the assignment of coordinating the legal aspects of any "Class Action" lawsuit that arose from the incident. Judge Barbier, in fulfilling the mandate of that position, appointed a group of attorneys to what is known as the Plaintiff Steering Committee or PSC. My understanding of the arrangement is that the PSC members were required to obtain an agreement with the defendant (BP) to set up guidelines to be used to assign damages to the individuals who were affected by the spill.

I have been personally overwhelmed in trying to maintain my medical practice while working full time on this project. However, I now find myself needing to address the legal interests of my patients. While I am woefully unqualified to address these complex legal issues, my understanding of the settlement between BP and the PSC is that it leaves many deserving victims of this tragedy without any legal remedy or financial compensation for illnesses I know they are experiencing. With this in mind, I wrote to Judge Barbier on three different occasions (detailed below) and I believe him to be an honest and sincere individual. I also submitted a declaration to Judge Barbier on September 7, 2012 detailing my concerns with the medical settlement. The declaration is included in this affidavit as Exhibit 2.

There are two sections of this Class Action Lawsuit. The first involves compensation for losses experienced by individuals and business that were adversely affected by the oil spill. The second involves the medical aspects of this tragedy. While I know little concerning the guidelines agreed to by the PSC and BP for business losses, I have very strong opinions on the medical settlement. From my perspective, there were three glaring discrepancies in the medical aspect of





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the BP settlement.<sup>8</sup>

The first problem involves the Zones designated to recognize non-workers who were exposed to noxious materials and became ill. The second involves the actual long-term (chronic) symptoms being suffered by the victims of the spill. Both zones exclude thousands of individuals who should have qualified for the Medical Settlement. To qualify as a non-worker entitled to compensation, two major zones of residence were established. The first zone, "Zone A," was defined as "certain beachfront areas in Louisiana, Mississippi, Alabama, and the Florida Panhandle within at least 1/2 mile of the water."<sup>9</sup> Out of the estimated 105,000 people who qualified under this designation,<sup>10</sup> only 1,600 were from Louisiana, or approximately 1.6% of the qualified population. This is the approximate population of Grand Isle, the only community in the state where people live within 1/2 miles of the shoreline.

Although Louisiana suffered the greatest impact of any other location from the spill and a majority of cleanup workers coming from this state, only 1.6% of the people qualifying for this designation came from Louisiana, with the majority of the remaining 103,400 residents coming from Florida, Alabama and Mississippi. It appears that the Zone B is equally absurd. Zone B's parameters are unclearly defined as "certain wetlands within at least 1 mile of the water."<sup>11</sup> It will be interesting to see how many individuals qualify under this designation.

The second travesty in the settlement involves the definition of chronic illnesses associated with relevant chemical exposure. The list of chronic systems that qualify for this more significant designation concerns me because, while there is some overlap, it is not representative of the symptoms that I have repeatedly observed with my patients impacted by the spill.

That list is as follows: Ocular: Sequela of chemical splash to eye, including damage to cornea; Respiratory: Chronic Rhinosinusitis, Reactive Airways Dysfunction Syndrome; and Dermal: Contact Dermatitis, Eczematous reaction.<sup>12</sup>

My personal experiences with these "Conditions/Symptoms" are as follows:

Ocular: To the best of my recollection, I know of only one patient who had any long term problems with his eyes and he has never been a patient of mine. Other patients had eye complaints, but I don't recall anyone who entered the program who had any major problems with his/her eyes or vision.

Respiratory: Chronic Rhinosinusitis: This problem is extremely common in our area and it makes up a large part of my medical practice. Few of my patients undergoing detox treatment complained of nasal and sinus problems and I don't recall many of them asking for medicines to

<sup>8</sup> Deepwater Horizon Oil Spill Medical Benefits Settlement: Detailed Notice, Aug. 28, 2012, available at <http://www.deepwaterhorizonsettlements.com/Documents/Medical%20Detailed%20Notice.pdf>.

<sup>9</sup> *Id.* at 6

<sup>10</sup> Medical Settlement FAQ, Mar. 2, 2012, available at <http://www.marylandinjurylawyersblog.com/Medical%20Settlement%20FAQ%20203-2-2012%20%282%29.pdf>.

<sup>11</sup> Deepwater Horizon Oil Spill Medical Benefits Settlement: Detailed Notice, *supra* note 8 at 6.

<sup>12</sup> Deepwater Horizon Oil Spill Medical Benefits Settlement: Detailed Notice, *supra* note 8 at 28, 29.

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treat these disorders.

Respiratory: Reactive Airway Dysfunction Syndrome: Some of my patients mentioned that they had coughs early on in the course of their illnesses. However, few maintained these coughs and respiratory symptoms by the time they came in for treatment in our detox center. In none of the cases I treated do I recall pulmonary problems being a major consideration.

Dermal: Contact Dermatitis and Eczematous reaction: Quite a few patients described rashes that developed while working on the oil spill. Most of these rashes improved with time. While participating in our detox program, a large number of individuals developed eruptions of raised, red bumps, especially on their backs and trunks, or torsos. These areas generally improved when the treatment was completed. Some skin eruptions continue to occur after treatment was completed.

In summary, the above-mentioned problems, with the exception of skin disorders, were not among the major problems experienced by the more than 100 patients that I saw during the course of our treatment program. Nor were these problems frequent in the 100 or so other patients who I questioned following the oil spill.

Many of the problems experienced by my patients prevented them from working at their regular jobs, or made their work extremely difficult to perform. The major problems we saw, and the problems that continue to plague many of our patients, were fatigue, memory loss, irritability, headaches, muscular pains, joint pains, insomnia, vertigo, acid reflux, hypoglycemia and abdominal pains were the more common symptoms. As mentioned previously, skin rashes were also commonly experienced. Amazingly, only the skin disorders were included in the chronic conditions/symptoms in the settlement.

The next question that begs an answer is how does an individual qualify for the benefits included in the medical settlement? With reference to the "Chronic Conditions" category the claimant must submit -- "A declaration under penalty of perjury setting forth the condition and the location and time of exposure; *AND* medical records supporting the claim and ongoing care for the asserted condition" (emphasis added).<sup>13</sup> Since a large portion of the people adversely affected by the oil spill have no medical insurance, they also have few, if any, medical records to qualify in this area.

The above symptoms and qualifications are an absurdity, because they have little to nothing in common with the actual significant symptoms being experienced by the people who were exposed to these chemicals.

Why would the PSC and BP settle on these criteria? One reason would appear to be that this designation does provide some major benefits to BP. By avoiding recognition of the actual long-term consequences of these toxic exposures and by minimizing the significance of the illnesses actually being experienced, BP gets to avoid taking responsibility for the far more significant symptoms that truly exist in a chronic setting, such as memory loss, fatigue and severe headaches. In other words, if the actual long-term symptoms were included in this category, BP

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<sup>13</sup> Medical Settlement FAQ, *supra* note 10 at 3, 4.





would have to acknowledge that these problems actually existed. Understandably they were unwilling to do so. Additionally, these chronic symptoms would certainly qualify for more compensation to the victims of this crisis.

The last aspect of the medical settlement with which I take issue is the provision for the "Gulf Coast Region Health Outreach Program." Over \$100 million dollars is being put aside for research and clinics, supposedly to study and treat the general population of the Gulf States. However, to my knowledge, not a nickel of that money is designated to either study or treat the people who were rendered ill by exposure to the gumbo of chemicals resulting from the spill. Workers and residents impacted by the spill require health clinics that specialize in chemical exposure. However, the outreach program focuses on primary care, which is a fine service for the general population but does not address the victims of this spill. By not treating these individuals directly, BP is unwilling to admit that these victims actually exist.

BP's oil spill has (probably) resulted in the death of some individuals in our communities, and has permanently damaged the health of many more. BP's reckless disregard toward regulations has devastated our environment and, for many, their ability to make a living. To add insult to injury, during this tragedy BP arrogantly refused to cease using the chemical dispersant Corexit, the chemical that is suspected of causing the illnesses we have been experiencing, in spite of being directed to do so by the EPA in the early stages of the spill.<sup>14</sup> BP continued the usage of toxic chemicals that are not permitted for use in Great Britain. To date, BP has refused to take the responsibility for the resulting illnesses that it has created.

I would like to make the following comments with regard to individuals we have been treating at our detox facility. Because many of individuals are quite ill, this patient population would represent a subset for any study group that was looking for illnesses that were truly being experienced by victims of this calamity. There is an enormous need for us to be able to use this tragedy to obtain information on the cause and treatment of the health problems we have been observing. I have written to Judge Barbier on three different occasions, and he has responded indirectly to each of my requests. I have received calls from members of the PSC twice, and I met with two representatives of the group on one occasion.

My last request to Judge Barbier was for assistance in obtaining funding to enable us to perform some objective studies on the health effects of victims of the oil spill. My letter resulted in me receiving a call from a PSC member and arrangements were initiated to meet with one of the groups receiving funding for studies to see if we could do a series of studies on the people who were actually ill from these chemical exposures. I deferred the meeting arrangements to Dr. (Kaye) Kilburn, who was the chief design architect of our study group. On my last conversation with Dr. Kilburn, he stated that his contact person with the PSC stopped taking his calls and did not return the calls made to him.

The settlement does not account for the more serious medical symptoms associated with the oil spill, and the government has failed to recognize any medical impact. In response to a letter I wrote the Center for Disease Control (CDC) about health problems associated with the spill, the

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<sup>14</sup> Directive from EPA to BP on using less toxic and more effective dispersants (May 20, 2010), *available at* <http://www.epa.gov/bpspill/dispersants/directive-addendum2.pdf>.



CDC wrote back on June 15, 2011 that there are no trends in illness identified by the multiple surveillance systems used, and that there have been no approved dispersant applications since the summer of 2010. These assertions need to be supported with facts. My letter to the CDC and the CDC's response are included in this affidavit as Exhibit 3 and Exhibit 4. Once again, we have a public document that defies all reality and underlies the intentions of both our government and the private sector to avoid admitting that there are actually people who were rendered ill by this tragic experience.

In speaking to Dr. Riki Ott, a veteran of the Alaska Valdez oil spill, the use of the dispersant Corexit that was used in response to the Deepwater Horizon oil spill is approved in virtually all of the oil spill management plans of all of the companies working in the Gulf. This would provide a simple, and perhaps legal, excuse for the continued use of this chemical in our environment.

While I am skeptical about the claim by BP and the government that there were no approved applications of Corexit for spraying since July 2010, with the exception of one incident in September 2010, I have no scientific proof that this was an inaccurate or intentionally false statement. Anecdotally, however, I have studied repeated reports by concerned workers and residents that spraying continued, and I have spoken to numerous individuals who claim that the spraying of dispersants continued for long after 2010. The experiences they described have been identical to the prior, conceded instances of confirmed spraying. However, I have no proof that those comments are correct.

Unfortunately, and under any circumstances, the illnesses being experienced by the victims of this tragedy suggest that there is a continued presence of toxic materials causing problems that we have not experienced at this magnitude previously in the Gulf.

## 6. WHAT CAUSED BP SYNDROME

I have lived on the Louisiana coast for 67 years, and spent a considerable amount of time on Grand Isle and in the waterway now named Port Fourchon. The earliest offshore drilling for oil occurred off the coast of Louisiana. At that time, the oil companies couldn't have cared less about spilling oil into the environment. Those of us who frequented the beach at Grand Isle came home with brown feet and stained swim suits due to the oil present on the beaches where we swam and fished. I do not recall a single incidence in which anyone became ill as the result to exposure to either the oil or to the tar balls and tar "rafts" that were present on the beaches.

It is obvious that there is something different about this recent spill. BP insisted, even after the EPA requested an alternative, less toxic, dispersant than Corexit, that they could and should use this chemical to hide the oil that was pouring into the Gulf. It is beyond credible doubt that this decision was the new factor, and that Corexit is the prime suspect for the illnesses ruining the lives of so many neighbors and friends today. It is probably also responsible for the death of our dolphins, and the bizarre appearance of the crabs and shrimp that are harvested from the waters where these chemicals were used. BP's defiance in this situation is similar to its arrogance in ignoring safety guidelines that resulted in the original explosion of the Deepwater Horizon

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drilling rig.<sup>15</sup>

I recently had an opportunity to visit with representatives of BP at its U.S. office in Houston, Texas. The purpose of our visit was to attempt to get a commitment from BP to stop using Corexit for any future oil spill activities in the United States. The two individuals who negotiated with the PSC over the medical aspects of the settlement were present, and I expressed my disappointment with both the designation of zones that eliminated the majority of people from Louisiana from consideration for benefits, and the inclusion of absurd criteria for long term (chronic) illnesses.

By the time we left the meeting, BP asserted that unless ordered by the government, they would not consider discontinuing the use of Corexit as a dispersant in future oilfield spills. They also refused to commit immediately to informing the public when they use these dispersants in the future, but said they would consider action to stop blindsiding the public. Their position was that as long as Corexit was approved by U.S. regulations, they had the right to use the chemical in responding to an oil spill.

Upon leaving the meeting in Houston with representatives of BP, my wife was quiet and obviously disturbed. With tears in her eyes she muttered repeatedly that “[t]hey really don’t care,” and that “[n]othing is going to be done about our requests!” Brenda understands all too well that we cannot expect these wealthy corporations to concede anything remotely resembling honesty or fairness, if it is not in their best interest to do so. That means accepting responsibility and accountability for their actions, instead of doing or saying anything to avoid liability. She also realizes that our elected officials, who allegedly represent our interest, will never defy their wealthy benefactors and provide justice to those who they have pledged to represent.

## 7. CONCLUSION

We currently have the opportunity to take action on health problems that have defied identification and treatment for over 50 years. We squandered our opportunity to do objective studies on the “Agent Orange” fiasco that characterized the Vietnam War. I can vividly recall the controversy surrounding the illnesses experienced from exposure to the toxic brew of chemicals used to defoliate the jungles of Vietnam. We mistreated and misdiagnosed our heroes of that conflict and it was years before our nation finally acknowledged what was already known about these chemicals and the illnesses they caused.

Over 20 years ago we had another foreign conflict and once again our troops returned home ill, with over 175,000 of them being affected with a condition that became known as Gulf War Syndrome. Once again, these heroes were labeled as malingers and malcontents and were shoved into the background and ignored. Seventeen years later, Congressional studies indicated that these soldiers were definitely ill, and their problems were finally acknowledged.

Shortly after the 1991 war, a retired Colonel from California named David Root testified in a Congressional hearing that he had treated several veterans who were suffering from Gulf War

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<sup>15</sup> Jad Mouawad, *For BP, A History of Spills and Safety Lapses*, The New York Times, May 8, 2010, available at <http://www.nytimes.com/2010/05/09/business/09bp.html?pagewanted=all>.

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Syndrome and they all responded very well to his treatment.<sup>16</sup> There was no follow-up assessment of his testimony and there was no support at the time of Dr. Root's treatment experiences. Ten years later, Dr. Root was the physician who supervised the successful treatment of about 1,000 victims of the 9/11 crises in New York City. The techniques used by Dr. Root to treat the Gulf War Veterans were the same techniques used to treat the victims of the 9/11 attack and they are the identical techniques used to treat the victims of BP Syndrome in Raceland, Louisiana.

If all of these statements are correct, and if successful methods have been established for the diagnosis and treatment of these disorders, why have these techniques not been studied, written about and taught to physicians in anticipation of there being future generations of doctors who can truly understand these problems and are qualified to treat these disorders? The answer to that question is contained in the above affidavit. In our current crisis, a large, multi-national corporation has decided that they do not wish to acknowledge that the chemicals they insisted on using, and which are outlawed in their country of origin, have harmed anyone, anywhere at any time.

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<sup>16</sup> *Public Hearing Before the Presidential Special Oversight Board for Department of Defense Investigations of Gulf War Chemical and Biological Incidents (1998)* (statement of Dr. David E. Root, M.D., M.P.H., F.A.C.O.M. Colonel, USAF, M.C., Ret.), available at <http://www.detoxacademy.org/pdfs/testimony.pdf>.

*Q*

I have read the foregoing 16 page statement, and declare that it is true, accurate and complete to the best of my knowledge and belief.

Executed on October 11, 2012.

*Michael P. ...*

Subscribed and sworn to before me  
this 11<sup>th</sup> day of October, 2012

*Susan E. Matherne*  
Notary Public  
My Commission expires on: at death

SUSAN E. MATHERNE  
NOTARY PUBLIC, STATE OF LOUISIANA, LA  
MY COMMISSION EXPIRES AT DEATH  
NOTARY PUBLIC LICENSE #257



## AFFIDAVIT

My name is Scott Porter. I am submitting this statement without any threats, inducements or coercion, to Shanna Devine, who has identified herself to me as an investigator with the Government Accountability Project. I am a coral and oyster biologist, and I've been diving in the Gulf for over 20 years. After the BP oil spill (spill), a small dive team and I took water and coral reef samples close to the Macondo well (a.k.a MC 252 or the Deepwater Horizon site) for the Natural Resource Damage Assessment (NRDA) process, which is housed under the National Oceanic Atmospheric Administration (NOAA). NOAA assured us that it was safe to dive; however, after it obtained our samples, it backed out of our agreement to share the test results with us and to compensate us for our dives. Furthermore, since diving I have become sick, and chemicals from the crude oil and Corexit have shown up in my blood in high levels. My main complaint throughout the spill response is how closely NOAA has worked with BP and has neglected to present sound science to the public. I am providing this statement in order to educate the public on what has taken place. There are no restrictions on this statement's use.

### 1. EXPERTISE

In 1986 I went to Louisiana Technical College, for biomedical engineering. I realized I didn't want to be a doctor and switched to computer engineering in 1987. I took some classes at the Louisiana Universities Marine Consortium (LUMCON) on marine biology. For a short period I worked as an environmental biologist and chemist. I worked for two different environmental laboratories in the late 1980s at their bioassay department, where I would set up bioassays of wastewater and analyze the wet chemistry involved therein. A bioassay, or biological assessment, employs standard methods for measuring toxicity of a compound on aquatic organisms. In 1989, I worked at Lee & Ro Environmental Laboratories in Westlake Village, California. Given my experience, I was in charge of the bioassay program. In 1991 I realized the importance of aquaculture and went into Marine biology at Nicholls State University, located in Thibodaux, Louisiana. I graduated in 1997 with a Bachelors of Science in marine biology.

In 1991 I was hired as a diver for an oyster biologist. As a scuba diver and biologist myself, it behooved me to begin my own company rather than work for the biologist periodically. I opened my own company, EcoLogic Environmental Consulting, in March 1992. It is an oil field consulting and diving company, and I primarily work as an oyster biologist consultant between the state of Louisiana, oyster fishermen and oil companies. Prior to the spill, over 90 percent of my work was for the oil industry. While I still receive 70% of my earnings from the oil field, my income is only at 10 to 30 percent of what it was prior to the spill, because the Gulf oil spill moratorium reduced the typical demand for my service.

Over the past 25 years I have seen myself as a forensic investigator, and I have performed over 6,000 dives. If there is any damage or potential damage to an area, my clients contact me to try to figure out what happened or may happen. My first questions in examining the scene are: what

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conditions exist in these oysters or coral reefs, are they normal or abnormal, and why do they exist that way. Then I try to determine if the implications are good or bad for the normal environment.

As a consultant, I work with oyster fisherman and oil companies when they are required to perform an environmental survey prior to bringing the equipment in to work. However, the environmental survey requirement is like slapping the oil industry with an empty glove. There are no fines associated if they don't perform the assessment, but if they do perform the assessment and there is damage documented then it reflects poorly on the company. Along with these surveys, I also document passage of oilfield equipment through the marsh, and give it a Global Positioning System (GPS) trail of speed and direction. The companies that act as environmental stewards take the risk and do what they can to address any problems that the assessments and rig move reports reveal, but the majority do not perform the assessment.

## 2. ECORIGS AND PLATFORMS

Since 2006 I have also worked for EcoRigs, a nonprofit organization that is trying to preserve the platforms of offshore rigs for the ecological oasis that they represent. EcoRigs' primary concern is the preservation and research of coral reef communities. I have been studying coral reefs on platforms offshore of south Louisiana for 14 years. These reef habitats occupy most of the continental shelf and all of the continental slope. The continental slope has platforms with unique footholds on it in order to exist in their specific environments. We want to preserve some of the more pristine coral reef habitat that exists on these structures, because there are potentially hundreds of species with the potential for natural biomedical properties that we may discover. Photos of EcoRigs staff and me working with coral are included in this affidavit as Exhibit 1.

For at least the past 20 years the Bureau of Oceanic and Energy Management, Regulation and Enforcement (BOEMRE), formerly the Mineral Management Service (MMS), was open to examining platforms for living corals. Prior to the spill I was excited about leading them under the platforms for an investigation into *Tubastraea micranthus*, an invasive coral species I recently discovered in the northern Gulf. However, since the spill my oil field consulting and this coral research has dramatically declined; there has been practically no work the past couple of years to produce corals on the commercial market.

Another reason to save many of the offshore platform structures is because we have the technology to put sensors on the bottom of the platforms to determine if the plugged and abandoned wells ever leak. This is the big monitoring tool that most oil companies do not want. If a well ever leaks and the Coast Guard detects the oil, the company will be liable for the cleanup and a fine. Oil companies prefer to keep doing what they have historically done, which is to plug and abandon the well, remove the platform and stop all liability. It would be helpful to have one of these sensors on the Macondo well. Other divers and I were worried about oil leaking from there because, even after the well was capped, we continued to see fresh oil coming

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up and fresh plumes in the vicinity of the Macondo well and within an approximate 40 mile radius of the Macondo well. In September 2011 and October 2012 it was confirmed that fresh oil was coming from the location of the Macondo well, and it was identified as BP MC 252 oil.<sup>1</sup> Photos of fresh oil within the vicinity of the Macondo well are included in this affidavit at Exhibit 2.

The Gulf waters east of the Mississippi River (the river) used to have areas with relatively consistent clear, blue water because there is an offshore current in the Gulf that flows east to west across the face of Louisiana, and the current typically pushes the river water away from northeast of the river. The current typically pushes most of the sediment load from the river south and west across the Louisiana coastal zones and leaves portions of the northeast side of the river clean, clear and blue. The spill happened in the worst place, because east of the river is where most of the oil came inshore and damaged some of the most pristine reefs. Then it happened in deep water where oil and dispersed oil is virtually impossible to recapture and could potentially destroy living creatures from 5,000 feet down and up.

Prior to the spill, if we ever had a film crew that had to get shots underwater, we would normally bring them to the northeast side of the river to Main Pass (MP) 311, which is located about 40 miles northwest of the Macondo well. Before the spill, the water was typically cobalt blue and some of the most pristine reefs were located there. When we dove, we could see all kinds of living organisms, such as sea turtles, manta rays, angelfish and sharks. After the spill the water became pastel green or brown, like a tan tint color. We have video that compares that location in 2008 to after the spill in 2010 through April 2011.<sup>2</sup> The contrast is shocking. By August 2010 I was noticing an absence of damsels, blennies, and gobies near the surface during our Louisiana dives. Photos demonstrating the changes in MP 311 are included in this affidavit as Exhibit 3.

After the spill, I dove numerous times with a small team, including members of EcoRigs, to collect water and coral reef samples in the vicinity of the Macondo well. We wanted to examine the environmental effects from the spill, so we dove at MP 311. The ridge that we dove in is 200 to 220 feet deep of water; however, when you move closer to the Macondo well it drops to 5,000 feet. When the spill occurred, these offshore reefs were the first organisms to come in contact with the dispersed oil. Fish can swim away, coral reefs can't. In effect, the oil that was dispersed at the surface around the Macondo well moved into the first line of major reefs, which were located on the continental slope, such as MP 311. The first reefs to be affected were the corals

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<sup>1</sup> *Fresh Oil Sheen at Deepwater Horizon Site*, The Maritime Executive, Oct. 11, 2012, <http://www.maritime-executive.com/article/fresh-oil-sheen-at-deepwater-horizon-site>.

<sup>2</sup> Video footage of MP 311 before the BP oil spill is on file with Government Accountability Project and available upon request. Associated Press. "AP Exclusive: Scuba Diving in the Gulf Oil Spill." YouTube. Jun. 9, 2010. [http://www.youtube.com/watch?v=FGX7krQYI\\_4](http://www.youtube.com/watch?v=FGX7krQYI_4;); Scott A. Porter. "EcoRigs MP 311 coral sample 1 at 20m." YouTube. Jun. 10, 2010. [http://www.youtube.com/watch?v=\\_hoIYshYVNE](http://www.youtube.com/watch?v=_hoIYshYVNE); Scott A. Porter. "40 miles North of Deepwater Horizon sets MP 311 SCUBA samples at 15m June 7 2010." YouTube. Sept. 30, 2010. <http://www.youtube.com/watch?v=G4W7pTHJcCs>.



and oysters on the platforms scattered across the continental slope and shelf (detailed below) respectively. Ultimately the dispersed oil made its way into the inshore oyster reefs in the coastal zones.

Before the spill the only university and government entities that expressed interest in receiving EcoRigs' coral reef samples were the curator at the Smithsonian and the University of Southern Florida (USF). We sent them representative samples of typical reef organisms. The Smithsonian requested samples of the coral skeletons which will be kept on file, and the coral skeletal structure will be studied. We were told by our contact at USF that they lost the fresh coral reef samples that we froze and shared with them in 2009. Photos of these coral reef samples are included in this affidavit as Exhibit 4.

My greatest critique with how the federal government has responded to the spill is that agencies are not examining the reefs in the locations that were first and worst hit by the dispersed oil. Even if they were looking at these organisms, they would need us to explain what they should be looking for and what organisms are no longer there in the aftermath of the spill. To the best of my knowledge, NOAA has to date refused to acknowledge organisms located on the oil platforms. In my experience since the spill, NOAA has been dismissive of these coral reefs and ignored the valuable database that they represent.

#### 1. CORAL SIGNIFICANCE

The artificial coral reefs represented a touchy issue of what was growing on offshore platforms. Before the spill, EcoRigs and NOAA were as two ships passing in the night. We were trying to get NOAA to acknowledge the organisms around the platforms and the offshore reefs that we have been researching for the last decade. There are over 4,000 offshore oil and gas platforms in the northern gulf. However, at the end of the life of a well, under a directive by the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE), formerly the Mineral Management Service (MMS), the whole platform is removed. This is unfortunate because 80 to 90 percent of these platforms have some form of coral living on them. Also, there are 10 times more fish around these platforms than around an acre in the marine banks in the same area. If you want to fish or find reef samples, you go to a platform.

BOEMRE claims that the platforms can over time turn into a navigational hazard. However, we are not advocating that the platforms remain up permanently. We argue that for a designated period of time after they are no longer producing, we should have access to the platforms for ecological advancements.

NOAA has taken the position that these coral reefs are not protected under the Endangered Species Act (ESA), claiming it is not required to include the coral reefs found on oil and gas platforms. Corals are protected almost everywhere else in the United States coastal waters under the ESA; however, corals on platforms fall outside these protections because they are categorized as artificial reefs, as opposed to natural reefs. On the flip side, the Magnusson Stevens Act

protects all endangered habitat, including coral reef on artificial structures. I think it is a political matter; NOAA supports the removal of platforms, and if they applied the Magnusson Stevens Act then they would have to require the oil companies to scrape the reef off the platform before they can pull the platform out. This process will cost the companies millions of dollars and hold up the removal of the platforms.

Over the last ten years my company concentrated on the artificial reef in a specific zone along the continental slope. The reefs beyond 10 to 20 miles offshore contain the more exotic reef forming organisms, including large, stony coral. Before the spill, my company was holding off on selling coral until Dr. Paul Sammarco of LUMCON and I could get our report published on this new invasive coral, *Tubastraea micranthus*. It was important for it to be published, because the organism that we were working with had never been collected in the region; it was new and thriving. In fact, it was the first time it had been found in the whole Atlantic basin. It comes from Indonesia, and it probably came over in the ballast waters of a ship right after Hurricane Katrina. Our paper was published in April 2010 through the scientific journal *Aquatic Invasions*.<sup>3</sup> Shortly thereafter, the Deepwater Horizon exploded.

The Macondo well is located in a deepwater basin 5,000 feet deep called the Mississippi Canyon (MC). The MP and MC blocks of platforms represent the most substantial reefs in the direct path of the oil. In turn, their reef communities are affected first and the worst by the dispersed oil plumes. Near the northern edge of the canyon, where it comes up 1,000 feet, is where the bottom of the MC 194 (aka COGNAC) platform sits. Their essential fish habitats, reefs, are at the edge of where the oil would begin to surface from underneath or float in from the dispersed oil in the subsurface waters. The MC 280A (aka LENA) platform sits across from MC 194, on the southern edge of the canyon. It also serves as essential fish habitat, where the oil would begin to surface or float in as dispersed oil clouds in the subsurface waters. Maps of these locations and MC 252 and MP 311 are included in this affidavit at Exhibit 5.

#### 1. SCIENCE IGNORES COREXIT; OIL OUT OF SITE BUT NOT GONE

When the spill occurred, most of the local Gulf scientists were employed by universities and had limited scientific freedom, because their findings needed to be approved by their institutions. At EcoRigs we wanted to study reef samples, sponges, oysters, barnacles, but NOAA did not express interest. To date, NOAA has not looked at the damage in the Gulf closely. The oil and dispersants are comprised of Polycyclic Aromatic Hydrocarbons (PAHs), which are known carcinogens. If NOAA doesn't want to know what has been killed from the spill already, it should at least sample the reefs now so it knows the reefs' PAH concentrations.

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<sup>3</sup> Paul W. Sammarco, Scott A. Porter & Stephen D. Cairns, *A new coral species introduced into the Atlantic Ocean - Tubastraea micranthus (Ehrenberg 1834) (Cnidaria, Anthozoa, Scleractinia): An invasive threat?*, 5(2) *Aquatic Invasions* 131 (2010), available at [http://www.aquaticinvasions.net/2010/AI\\_2010\\_5\\_2\\_Sammarco\\_etal.pdf](http://www.aquaticinvasions.net/2010/AI_2010_5_2_Sammarco_etal.pdf).




Government and media reports on the science of the spill have not addressed external factors that increase the public health and environmental dangers, in particular, the use of the dispersant Corexit to treat the oil. When the government and BP would say “the oil disperses” I would ask, “what happens to these chemical compounds; if they disappear, do they just no longer exist?” (detailed below). BP and NOAA officials argue that when oil is at the surface of the water, some of the volatiles can just evaporate and no longer pose a health risk. Unfortunately, that’s not what happens when they spray Corexit onto fresh oil, which is a huge wrinkle.

Total Petroleum Hydrocarbons (TPHs) have a long list of compounds associated with crude oil. The volatile compounds, PAHs, are some of the most dangerous compounds because they have the lowest toxicity thresholds. The lowest toxicity threshold is a technical way of saying that it takes less of the compounds to cause damage or be poisonous. Furthermore, they evaporate easily and are easy to inhale – especially the uppermost or lightest of the aromatics containing benzenes. When controlled burns take place, TPHs and volatile compounds become airborne in large quantities and therefore are dispersed into the atmosphere. There is little doubt that burning fresh crude oil at the surface releases toxic compounds into the environment, but TPHs and PAHs become even more dangerous when you put dispersants on them.

Notwithstanding the highly toxic nature of dispersed oil, the oil industry now depends primarily on the use of dispersants in the event of a spill. Like any good magician, the oil industry has learned that if you can’t see something that was there, it must have ‘disappeared.’ The industry has known for decades that if someone doesn’t or can’t see an oil spill then it’s hard to prove the magnitude of the spill or that it ever existed. Oil companies have also learned that, in the public mind, “out of sight equals out of mind”. Therefore, they have chosen crude oil dispersants as the primary tool for handling large, marine oil spills.

Using Corexit in the Gulf made it more difficult to identify BP MC 252 oil. As a dispersant, Corexit breaks down very fast in the environment, and it is supposed to erase the oil signature by breaking down the “fingerprint” of the oil. The fingerprint contains organic hydrocarbons that can be traced, and we have tools to help determine if the oil came from the Macondo well or a different spill. An analysis known as a gas chromatograph provides an interpretation of the oil fingerprint. It can often be difficult to get a 100% guarantee reading that it is a specific type of oil depending on the age of the oil in the environment, but this is the standard and most reliable method available to identify the oil. We can also use a biomarker test to analyze the level of exposure to the dispersants and oil but these tests are not considered as reliable by some specialists. More discussion on analysis protocol is desperately needed.

The dispersant breaks down crude oil into micro-droplets, small enough pieces which can then be dissolved into or suspended into the water column; that is what makes the dispersed oil plume. When oil and dispersant are mixed they break down the long carbon chain, which is crude oil. This process facilitates the release of the PAHs from the TPHs - heavier compounds that then sink. The heavier components of crude oil, such as asphalt, easily sink to the seafloor as



crude oil breaks down. Oil also sinks when “marine snow”, or suspended sediment coated with dispersed oil, eventually descends to the seafloor. However, the aromatics - arguably the most dangerous and some known carcinogens - do not sink so easily. The aromatics typically have a lower specific gravity than seawater, which means that they tend to float near the water’s surface. Whether on the bottom of the seafloor, in the water column or at the water’s surface, these compounds (i.e. benzene, toluene, styrene and xylene) enter the food chain and then bioaccumulate in seafood over time.

## 2. SEAFOOD CONCERNS, CHEMICALS BIOACCUMULATE

An important question, which has been absent from government discourse on Gulf seafood safety, is “How are organic compounds biologically accumulative?” As an organism ingests organic compounds they will lock up primarily in the lipids or fat cells of the body and then accumulate with exposure. For instance, algae first eat the oil and then have organic compounds in their cells. Algae are then eaten by zooplankton, which are microscopic water bugs. Other “grazer” organisms, such as crabs and shrimp, eat a wide variety of organic material that they find on the reef, including algae and potentially oil micro-droplets. Crustaceans, or shellfish, eat the zooplankton and plankton. If or when the shellfish is eaten by the fish, all that the shellfish previously consumed begins to bioaccumulate in the fish. This is the organic compounds’ typical route into the food web.

Several of the oyster, water and coral samples that we collected matched the Macondo fingerprint, BP MC 252 oil. Oysters are big water filters, so whatever they pick up can remain in their shells and skeletons. In September 2011, I collected oysters 30 to 40 miles north of MP 311, or approximately 80 miles north of the Macondo well. We sent the tissue in for the testing and it came back high in TPH at 260 parts per million (ppm). The test results are included in this affidavit at Exhibit 6. Of those TPHs, 31ppm was diesel. An LC 50 (lethal concentration which kills 50% of the test organisms within two to four days) is a way we begin to describe these concentrations. The LC 50 for the dangerous aromatics (PAHs such as diesel) typically ranges from two ppm to just under 20ppm.

After we received some of the results back from our samples, in August 2011 during a meeting with the Gulf Coast Claims Fund (GCCF) I tried discussing our findings. The first thing that GCCF Administrator Kenneth Feinberg said was, “How do you know it was Macondo oil?” When we showed Feinberg videos of the underwater clouds of dispersed oil he responded that NOAA was not reporting those results to him. He asked a group of seafood lawyers in the meeting why the state would spend \$250 million dollars on its seafood program if the seafood was not safe?

Since the spill, EcoRigs and other scientists and commercial fishermen have asked NOAA to analyze the presence of TPHs and PAHs in seafood frequently consumed by the public, such as the offshore fish like red snapper and amberjack, as well as, oysters, shrimp and crabs. NOAA



would respond that the seafood was being tested daily; however, this was not reassuring because NOAA and the Food and Drug Administration (FDA) relied on sensory testing – or a sniff test – to support its position that Gulf seafood is safe for consumption. As an oyster biologist and forensic scientist, I know that a sniff test means you don't want to find any contamination in tissue sample. The aromatics are what you would be able to smell through a sniff test, and the human nose is only supposed to be able to detect the presence of these gaseous molecules in the triple digit parts per million range and above. Therefore, the lower concentrations of aromatics, even though still chronically dangerous, are extremely difficult to detect with the smell test. Even people trained to smell for these chemicals cannot detect them at low levels.

The aromatics may evaporate and dissipate rather quickly in air, but when ingested they tend to get stored in fatty tissues and biologically accumulate. Even if the levels of contamination are too low to detect by a sniff test, the danger is that as you eat the seafood, the toxins bioaccumulate in the body. PAHs and TPHs are dangerous down to 10 parts per billion (ppb); however, you can only even smell the chemicals at 100 ppm or milligrams per kilogram (mg/kg), which is still 10 times greater than the testing average lethal concentration. This means that if you can smell it, it is already ten times the lethal concentration that kills 50% of test organisms in two to four days. However, to my knowledge these were not the samples being tested by BP or the government. NOAA seemed to only be sampling the organisms that were healthiest and still living, and even those could have unsafe contamination levels that would pass the government's primary testing method.

### 3. TESTING CONCERNS

Of public concern is the fact that NOAA allowed BP to choose where the samples would be taken from and then allowed BP to hire a laboratory on a contractual agreement to test the samples. Throughout the spill, Vessels of Opportunity (VoO) captains would take scientists to collect samples for BP. Several of the VoO captains informed me and other scientists that BP instructed them away from the oil to take the samples, and in turn they rarely encountered fresh oil. Captains told us that this happened frequently from Louisiana through Mississippi. Later, a FOIA request by Greenpeace found that BP was trying to control where independent research funded by BP would take place, including potentially where the vessels went.<sup>4</sup>

In the 1980's when I worked in a lab, we would get samples in the lab that would not pass Environmental Protection Agency (EPA) requirements and the laboratory director would tell us to run the sample again. At times we were instructed to dilute the samples in order to achieve the desired results. It was a practice that I did not agree with, but there was no tolerance for dissent. It was that way in the late 1980s and this spill has raised the question of whether this practice is still taking place. Similar to the 1980's, competition between labs is still high, and to my knowledge there are no regulations enforced to prevent this practice.

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<sup>4</sup> *BP Internal Meeting Notes*, The Guardian, Apr. 15, 2011, <http://www.guardian.co.uk/environment/interactive/2011/apr/15/bp-internal-meeting-notes>.



There are greater questions of scientific integrity in the handling of the spill, because to a degree BP is able to control where the samples are taken from and what the public sees. There have been cases where we know we have sent independent labs samples with oil, because we could see and smell the oil at the surface, and the labs still didn't identify oil traces. When that happened my first question was, "How did they test the samples, what were the protocols?" By fall of 2010, several environmental scientists, including myself, were discussing the accuracy of the tests that labs were running and whether they were processing the samples appropriately. We are now looking at their protocols for analysis and raising the concern that their testing methods may be outdated and insufficient to accurately analyze PAHs and TPHs.

As an environmental scientist, I look at the way the government and BP are handling, describing and discussing the spill. A bioassay, or biological assessment, employs standard methods for measuring toxicity of a compound. Further, it is the only way to determine the spill's effect on Gulf organisms. The 48 to 96-hour acute test determines the LC50. A lower LC50 indicates a higher toxicity. This is just the beginning of a discussion from the laboratory standpoint. Based on the LC50, the parameters of the chronic analysis are designed to study the sub-lethal effects. The sub-lethal effects are determined by studying organisms cultivated in variable dilutions of the LC50 until the concentrations are established at which growth rates and reproduction rates are significantly affected and not affected.

The chronic analysis is used for a seven-day test, which is typically standard across the board for any aquatic biological assessment. At the end of seven days you don't want all of your organisms to die; you need them to live in the test water so that you can determine the biological effect that a compound has on an organism, such as growth rates, metabolism (appetite), reproduction, or whether cells form correctly. The goal is for the scientist to find the lowest concentration that does have an effect, and/or the highest concentration that does not have an effect. As consultants, it is the magic number that we can tell our clients how much they need to dilute a chemical, such as wastewater or a dispersant, before releasing it into the water.

Our government has been screening at 100 mg/L or 100 ppm, which is 10,000 times higher than the concentration that can still have sub-lethal effects. We know that Corexit by itself has an LC50 of around 20 mg/L after 48 hours; it will kill 50 percent of the organisms living in a solution of 20mg/L after two days. Crude oil alone has an LC50 of 10 mg/L. Corexit and crude oil create an LC50 at 2 mg/L, which makes the dispersed oil more toxic than the oil or dispersant alone. Despite these additional threats, the government did not account for the increased toxicity of the combined oil and Corexit; its statements were based on the LC50 of Corexit alone and not the dispersed oil seawater solution. Further, it did not test the sub-lethal concentration of the crude oil and Corexit mixture.

The government wouldn't allow for a company to disregard bioassays in other private industry liquid waste and wastewater effluent; they are standard for an industry or municipality. For example, the chemical industry and treatment plants that produce wastewater have to have a



bioassay done on water before it can go in a sewer or bayou or natural stream. However, within the context of the spill, NOAA is not discussing the bioassay of the compounds associated with dispersed oil and what is happening to them in the environment. They won't tell us what the significant dilutions of Corexit are. Why won't NOAA tell us how long Corexit and or dispersed oil remain in the water column? I do not believe that they know the answers to these questions!

There are compounds in the makeup of Corexit that resemble glycol. You can't empty a radiator of antifreeze into the street. Yet we are using Corexit, which contains a type of glycol, in unprecedented amounts in the Gulf, and the public doesn't know how much glycol or how much of the other highly toxic chemicals comprise Corexit. Further, dispersant flight information is not available to the public. That concerns me and other divers, because we continue to encounter and sample what seems to be large patches of fresh, dispersed oil slicks 80 to 100 miles apart in Louisiana in similar patterns, though not as heavy, to what we saw in 2010, and we still do not know if they are spraying these slicks with dispersants. We know that the government entities do not admit to any spraying after July 17, 2010, but we have sampled many fresh, aromatic oil slicks below Louisiana throughout 2011 that appeared to be hit with dispersants.

#### 4. DIVES, NOAA

About three weeks after the spill, the oil plume was 10 feet thick. Other divers from EcoRigs and I were 12 miles south of the Mississippi River on MC 194, the deepest installed structure in the Gulf of Mexico. In early May 2010 we took Jeff Corwin from CBS News in Venice, Louisiana and went diving 12 miles south of South Pass at this same rig. We took video of the conditions and it was relatively clear, but there was a slight greenish tan haze. We experienced a cloud of micro-droplets of dispersed oil at 10 feet thick from the surface.<sup>5</sup> We went back to the same area four and six weeks later with Discovery Channel Canada and the plume was over 30 feet thick. At that point my outlook had changed from "this is something we can handle," to "we actually have an environmental disaster of unprecedented magnitude." The plume had magnified itself to three times the amount of dispersed oil, and it was thicker, more viscous. Not only was it thirty feet deep but the turbidity or murkiness was much heavier. Turbidity is caused by particles suspended and/or dissolved in the water column.

On June 7, 2010 we went diving at MP 311. That day we took out Rich Matthews of the Associated Press (AP) and documented 30 to 40 foot clouds of dispersed oil, which we later began to call dispersed oil plumes. A photo of the dispersed oil from that dive trip is included in this affidavit as Exhibit 7. We dove to 80 feet that day and took samples from 60 feet below the water surface. After that dive, I was ill for several days. It felt like I had chemical pneumonia. I had burning in my chest, a pounding headache and diarrhea. We were just beginning to see the

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<sup>5</sup> Scott A. Porter. "EcoRigs J Corwin underwater." YouTube. Jun. 10, 2010. <http://www.youtube.com/watch?v=LiDYnq2P2Nk>.

thicker dispersed oil at that time. We didn't know the health threat posed by the dispersants then, so we were not heavily alarmed. Rather, we were curious. At 60 feet deep we witnessed six-foot long mucus like strands of what appeared to be oil that was not completely dispersed. I've never seen anything like it, and I've been diving in the gulf for 20 years. We proceeded to film them.<sup>6</sup> Due to a shortage of funds, we were unable to test the samples from that dive.

Our EcoRigs dive videos began going public in May 2010 through CBS Evening News. By June 2010 NOAA wanted us to bring them water samples from the sites covered in our videos. During the talks with NOAA, we explained, "We are reef biologists, let us bring you reef samples because they hold information about what compounds are absorbed and suspended in the water column. As filter feeders, they are like a library in that they are biological databases for hydrocarbons that may have been present in the water column." Our contacts at NOAA made it clear that they wanted water samples; however, they asked us to write a proposal to sample reefs. In exchange, we could use VoO boats to take samples from the locations that we identified as significant. We put together a two year proposal for reef, water, fish and tissue samples to profile the water column and organisms from 100 different locations.

For approximately six weeks from July to September 2010, we continued to discuss dive safety and I brought several of our water samples to the BP Incident Command Center in Houma, Louisiana where NOAA was housed. When I delivered the samples I would ask what they found in the previous samples that we provided. In the early stages of our work for NOAA they would tell us that they were still waiting on the lab results. Throughout this time they continued to tell us that they liked our proposals, and they wanted to get EcoRigs funded for five years in order to continue providing samples.

Between July and August 2010, Arkansas State University (ASU) offered to help us analyze our samples as well. We went to Grand Isle, Louisiana and Barateria Bay, Louisiana on three to four different occasions with ASU, and they found high levels of TPHs in the water and reef samples. Test results from those samples are included in this affidavit as Exhibit 8. When I went to the BP Incident Command Center in August 2010 to drop off more samples, I asked one of our NOAA contacts if they found any oil in the last samples. He said that the samples came back negative for oil. I pressed him on it further, and asked if they found any hydrocarbons or contamination in the samples. He replied that they did not find anything; the samples came back clean. I explained to him that was surprising, because we had sent samples from the same diving trip to ASU and they found contamination. He responded, "Oh, you're having them analyzed by a second source?" Shortly thereafter, NOAA didn't want to work with us.

We later learned that through NRDA, BP paid Louisiana State University (LSU), NOAA and an underwater ROV company \$4.3 million dollars to conduct a significantly scaled down report

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<sup>6</sup> Scott A. Porter. "MP 311 susp anom at 15m June 7 2010." YouTube. Sept. 30, 2010. <http://www.youtube.com/watch?v=Vig4ufCsM84>



analyzing 10 sites of deep-sea coral data that we were also asked to examine. LSU received \$430,000 for their part in the project, and NOAA received \$1,500 a day for each personnel. We realized that we wouldn't be funded, because they had already paid someone else for similar work after we had provided the background and proposal for something much larger in scale. Therefore, we made an invoice for the water samples that we delivered and gave it to NOAA.

Their final report, released in September 2011 by LSU, showed that NRDA looked at far less abundant and less productive coral colonies than we had proposed to NRDA. Their proposal included 10 sites where corals can be located; however they only examined the four sites that had the lowest priority on their list to study (the sites farthest from the Macondo well out of the 10 sites). Further, they only searched for the scarce species of coral living on the bottom of the seafloor at 5,000 feet, within 10 to 15 miles of the Macondo well eruption. Looking for deepwater coral is like looking for a needle in a haystack, because few coral species live down there. It's too deep for most reef forming Scleractinians, commonly known as stony corals. They did not look at the reefs or the abundant colonies of stony corals on the platforms. They didn't examine any fish or water samples with the \$4.3 million payment.

## 5. HEALTH PROBLEMS, BLOOD CONTAMINATED

After our early dives with NRDA, Steve's contact was still telling us the water was fine and the dispersants were safe to dive into. However, I was experiencing health problems, and I thought there was a connection to my diving. When I first began bringing NOAA our samples in June 2010, I told my two NOAA contacts that my skin was breaking out in itchy rashes. I asked if they were aware of other workers in the field who were also experiencing rashes or other health problems. They told me that they were not aware of this happening to other workers. My dive partners at EcoRigs and I didn't know how serious it was at the time, and no measures were taken by government contacts, including within NOAA, to check on our health.

From May to June 2010 I wore a wetsuit while diving. By the end of June I was wearing a dry suit. In June my dive partners were still skeptical about my symptoms; they did not think it was necessarily associated with my diving, and they continued to wear wetsuits. Most divers in the Gulf of Mexico do not have dry suits because it is fairly warm year-round. In a wetsuit they were more likely to have high dermal exposure from the chemicals while diving. While the dry suit kept me relatively dry, my face and ears and hands were still exposed to water. I was diving more than my dive partners and my health problems persisted. For the first time in my diving career I had a burning sensation that felt like chemical pneumonia in my chest. After each dive I began having chest colds, a burning throat, migraine headaches and itchy skin rashes. A lot of it has continued to this day (detailed below).

By July and August 2010 we were diving several times per month from below Mississippi to Cocodrie, Louisiana. We dove August 8, August 21 and August 23, 2010, which impacted my health more severely than the earlier dives. After the dive on August 8, I really began feeling



under the weather and it took over a week to recover. After each dive my chest would feel worse. At that point it took five to six days to get rid of the burning in my throat, but I stayed sluggish and lethargic and also had migraines. By then, I started to get worried about what I was diving in, and I increased efforts to contact any specialists, government officials and politicians who possibly could shed some light on what we were being exposed to.

In August 2010 I called Billy Nungesser, Plaquemines Parish President, to find out if Corexit was still being sprayed in his coastal parish. During that time, I was diving on oyster reefs in the area and wanted to know what I was being exposed to. His secretary claimed that they didn't know anything, and that I needed to call the state or Coast Guard to find out. Then she proceeded to say "I heard you were fine." I wasn't sure what she was referring to, and I responded that I was having health problems for a while after diving into and filming the dispersed oil plumes.

When we went diving on August 21, 2010 we could not dive the northern edge of the MC platforms around MC 194 because the dispersed oil plumes were too thick for filming or safe diving, and there was a thick green plume, what appeared to be an algal plume (a.k.a. algae plume). Since the conditions were not optimal for diving, we went about 15 miles southeast of MC 194 to MC 280A. We still experienced dispersed oil plumes as large as 40 feet deep and an algae plume. The algae plume was so thick that it blocked out most of the light in the shadow of the platform at the depth of 60 feet. It was so dark that underneath the rig at high noon I could not read my SCUBA gauges at 60 feet. Normally the water would be clear blue and light enough to read a book. After that dive I experienced full body cramps and extreme nausea.

We went back and dove on August 23 for Fox 8 local news. I saw extremely thick dispersed oil plumes during that dive. I had a bad reaction that day; I was violently vomiting over the side of the boat 15 minutes after the dive, and I had muscle cramps that became debilitating from 10:00 pm that night until 6:00 am the next day. I also had flu-like symptoms for over a week following this dive trip.

After the August 23 dive I stopped diving in this region for the rest of the year. I did snorkel, however. At the time, I had a BOEMRE grant to look for invasive coral, but I was also trying to locate evidence of effects from the dispersed oil. Paul Sammarco made the executive call on the BOEMRE grant that he would not allow his biologists to scuba dive in the vicinity of the spill, because he did not want to put us at risk from the oil and dispersants. In October 2010 we conducted an ROV examination of the rig legs on the Grand Isle (GI) blocks' platforms. That location was supposed to be clear and clean. Rather than dive, I snorkeled to study the barnacle reef populations that live at the first five meters of water depth and found an extremely high rate of mortality in the barnacles and reduced populations of blennies and cowfish which are sensitive to environmental changes over 80 miles to the southwest of the Deepwater Horizon site.

In the fall of 2010 we had just come in from a day research cruise with BOEMRE through LUMCON. I saw Louisiana Governor Bobby Jindal getting on the helicopter from LUMCON.

He told me, "We will get this area reopened for you." I responded, "If so, they can't be spraying Corexit." He told me to call him if I needed anything. At his office's request, we sent copies of our videos of the dispersed oil plumes. However, we don't know what he did with them, and we never heard from his office. I am a supporter of the governor, but I couldn't even get a response from his office on whether or not Corexit was still being sprayed in Louisiana. I tried to figure out: is Corexit still being used, and how much Corexit was used from May 2010 to September 2010? It was important because throughout that time NOAA said it was safe to dive, so I had continued to dive. However, my health was getting worse.

I stopped diving in *any* of the open Gulf waters from November 2010 through mid-April 2011. In January 2011 I had a Volatile Organic Compound (VOC) blood test performed to identify chemicals from the oil and Corexit. The test results found concentrations in my blood one to three times higher than the 95th percentile for ethyl benzene and above the 85th percentile for Isooctane. The VOC blood test results are included in this affidavit as Exhibit 9. To this day, I speak with divers who are experiencing similar health symptoms. In fact, since 2011 I have received reports from more divers about similar symptoms including skin rashes. My dive partners, who never wore dry suits, also took the VOC blood test in January 2011. Their blood levels turned out higher than mine. There are chemicals in the water and now we are finding the same chemicals in our bloodstreams in novel levels.

#### 6. THE ENVIRONMENTAL PARTITIONING PRINCIPLE: WHY TOXINS PERSIST IN THE ENVIRONMENT


Partitioning, the scientific principle concerning toxins in an environment, governs the movement of organic compounds through soil, water and air. In a broad sense, this concept states that water will hold more toxins than air, and the soil (or reef material in the marine environment) will hold more toxins than water. Also, partitioning explains that environmental toxins such as hydrocarbons are harder to remove from water than they are from air, and they are even still harder to remove from solid substrate. Soil and reef material have the capacity to capture and absorb the toxins, which are then rereleased back into the environment over time but at a slower pace. In effect, they continue to re-contaminate the water column. Based on the partitioning principle, it is not surprising that we continue to find residue of the oil from the Exxon Valdez spill showing up in various samples from Prince William Sound ranging from soil and sand samples as well as birds' eggs.<sup>7</sup>

Another example of partitioning is between oil and water, which don't mix well. Dispersants are used on oil to reduce partitioning and to help the oil dissolve into the water column, or in other words, to help it disperse into the environment. Because dispersants are dissolvable by water and dissolve oil, they break the oil down into smaller pieces of hydrocarbon chains which are then more easily suspended and dissolved into the water column. As a result, more of the hydrocarbon

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<sup>7</sup> *Wildlife Still Exposed to Exxon Valdez 20 Years After Disaster*, Science Daily, Apr. 13, 2010, <http://www.sciencedaily.com/releases/2010/04/100414111018.htm>.





chains dissolve into the water and become more readily available to the food web where it biologically accumulates. Different portions of a plume have thicker or thinner concentrations of micro-droplets of dispersed oil. We witnessed these plumes underneath the platforms in the northern Gulf of Mexico throughout the summer and fall of 2010 and into the spring and summer of 2011.

BP and the government should have told workers that they were breathing in the chemicals every day. A lot of workers did not even have a day to vent or off gas the volatiles from their bodies. They should have been educated that ethylbenzene and other organic compounds are small molecules that get into bloodstreams and mimic hormones. When they get in the bloodstream they can block Estrogen or Testosterone from getting into a receptor site. In effect, the body starts to age faster.

The compounds can also lock up in fat cells. One way you get them out is by exercising to release them. When released, the VOCs supposedly have a half-life of 90 minutes to two days. Therefore, for up to 48 hours, they can either attach to a hormone site or into fatty tissues or, hopefully, lipids in the bloodstream which can then be expelled from the body. This process can be facilitated by eating light unsaturated oil that helps to put more lipids into the blood that are easier to metabolize. The light oil is also available for bad compounds to hook up to in order to pass through blood and get filtered by liver or kidneys or to pass with stool and sweat.

## 7. MEDIA BLACKOUT

On April 8, 2011 I went diving for the first time that year, at MP 311. Rich Matthews from AP took me this time, along with a Texas biologist. The water looked better than my dive trips in 2010; however, there were still big waves of cloudy plumes coming through the reefs under the platforms. Immediately after diving I started throwing up on the back of the boat. I had to dive again after a short 45-minute break because I was the only one with a camera who could film underwater during that dive trip.

When I got back on the boat I overheard the other biologist say to Rich Matthews that everything was fine and back to normal in the aftermath of the spill. I qualified his assertion that the Gulf was fine, and I asked him, "How many times did you dive last year?" He responded that in 2010 he did not dive in the Gulf. He also did not have previous experience in the area we were diving in. I was diving in the same region of the Gulf before the spill, throughout the spill and after the spill with footage that proves conditions are nowhere near normal.

Despite our thorough coverage of the impact from the spill, with the exception of one time, the large news broadcasters did not provide EcoRigs credit for the footage that we provided. Further, mainstream news media would not report on the questions we raised about dispersants. In my interviews, news stations consistently edited the portions of the interview where I mentioned

dispersant or Corexit. I believe it is because they did not want to tell the whole story, which was a disservice to their viewers.

#### 10. SCREENING FOR OIL

An Ultraviolet (UV) light is like a metal detector for potential hydrocarbon contamination. It will make hydrocarbons fluoresce certain color spectrums. The more reputable of these lights come with a spectrum chart that shows the colors that hydrocarbons should fluoresce. For instance, the light can be used to identify hydrocarbons from the oil and dispersant that have washed up onto the beaches, have attached to reef corals, or are in seafood. Photos of oiled oysters under normal light and under the UV light are included in this affidavit as Exhibit 10. I have gear that still has oil on it; I couldn't get it cleaned and now I am able to use it and tarballs that we've collected as standards for screening samples. Everything that matches these fluorescent signatures has a high potential to match the oil produced by the Macondo well. Some of the other fluorescent colors for typical solvents and Corexit are also visible in the spectrum produced by samples in which they are present, but we need more data to understand these color patterns more accurately.

Sponges, corals and oysters are picking up the most hydrocarbons, and many of the oyster shells are glowing pastel yellow, orange and tannish brown. They are the same colors that I am seeing in the fresh tarballs that continue to surface in fisherman's nets. Photos of oyster shells and tarballs under normal light and under the UV light are included in this affidavit as Exhibit 11. As an environmental biologist, I have to address the potential of seafood contamination from the nation's largest oil spill in history. As an oyster biologist, I am telling people not to eat the oysters.

#### 8. CONCLUSION, OIL NOT GONE

Before I experienced it firsthand, I would have never believed that you could pollute the northern Gulf so much that it would be dangerous for me to swim in it. In March and April 2011, I called the governor's office, Plaquemines Parish press office and P.J. Hahn, director of Coastal Zone Management, and I asked them, "Are they still spraying Corexit?" I explained "I heard reports that they are still spraying, and I need to go diving but I don't want to if Corexit is still being used." However, no one could answer my question and I still cannot get a definitive answer to this day. I am concerned because we are still seeing dispersed oil at the surface of the northern Gulf on a consistent basis.

My goal now is to get the word out about that damage that has taken place. Nobody is talking about it right now; however, I cannot remain silent around the impact of the spill. Consider the immense impact of the spill on the ecosystem by looking at Valdez, Alaska, where the 1989 Exxon Valdez spill used a small fraction of the Corexit that we have used in the Gulf. You can't catch significant harvests of herring anymore in Prince William Sound; scientists believe that Corexit affected the reproductive cycle (they think it affects the cell wall of the eggs.) Corexit



might mutate the RNA or DNA. The effects are still unknown to the public and larger part of the scientific community.

After Hurricane Isaac came through, I went with Steve Kolian and another individual to Louisiana's southernmost port, Port Fourchon. When we first got out there I didn't see any large tarballs in sight. However, as we walked to the northern end of the beach the sand got darker, and I noticed these weird looking small mats scattered throughout the sand that look like cooled molten lava spilled onto the beach. They were more like sandy clay, however, when you touched them. Then I realized there were giant mats of this substance further up the beach. When I looked at it closely I could see sheen and a dark red precipitate settling out of the water running off of it, which resembled the tar patties we encountered during the spill. Photos from the oil sheen and tar mats at Port Fourchon after Hurricane Isaac are included in this affidavit as Exhibit 12. New data shows that the latest oil washing up on the Gulf shorelines is in fact BP MC 252 oil. I am not surprised by the presence of oil washing up after storms, based on our earlier dives in the Florida panhandle.

Other EcoRigs divers and I went diving in the Florida Panhandle in July 2011, to collect samples for the Surfrider Foundation. That area is known as the Emerald Coast, for its crystal clear water. When we went diving, however, the water had a brownish white haze that resembled what we saw in offshore Louisiana at 30 feet below sea level. When we dug into the sand in the Florida Panhandle we found anomalous material that resembled tar patties and oil. Photos of the seafloor during that dive trip are included in this affidavit as Exhibit 13. I have never witnessed anything like that since I began diving in the Emerald Coast 20 years ago. The seafloor is typically white sand. There is an area along the Florida coastline that has dark colored runoff (soil that has eroded) from the bays. However, the runoff is normally more isolated and is a black color. What we witnessed during the July 2011 dive was a reddish brown substance on the seafloor that resembled tar and spanned a much larger area than is typical of the natural runoff.

In the areas where the seafloor was covered with the tarlike substance, we noticed much less sea life. There were hardly any sand dollars or crabs and only some fish, whereas we would normally see an abundance of organisms. It was desolate, and reminded me of noticeable drop in sea life during our 2010 and 2011 Louisiana dives.

The most startling observation throughout my Gulf dives in the aftermath of the blowout is the toll of the spill on coral. I observed what appeared to be greater than 70 percent mortality in the offshore barnacle reefs in Louisiana, down to at least 20 feet below sea level. Photos of the damaged offshore coral are included in this affidavit at Exhibit 14. In December 2012, the scientific journal Gulf and Caribbean Research published a paper by Steve, me, Paul Sammarco, and highly respected oyster biologist Ed Cake. It examines BP MC 252 oil found in offshore





coral, and looks at how coral and other filter feeding organisms that live on offshore platforms can be used to determine the breadth and impact of the spill.<sup>8</sup>

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<sup>8</sup> Kolian, S. R.; Porter, S.; Sammarco, P. W.; Cake, E., *Depuration of Macondo (MC-252) oil found in heterotrophic scleractinian corals (Tubastrea coccinea and Tubastrea micranthus) on offshore oil/gas platforms in the Gulf of Mexico*. 25 Gulf and Caribbean Research 99 (2013), Available at <http://www.ecorigs.org/CoralDepurationBPOil.pdf>; EcoRigs Nonprofit Organization "BP\_CrudeOil\_Coral\_EcoRigs2." YouTube. Apr. 2, 2013. <http://www.youtube.com/watch?v=LrvNsJjAzoo>.



I have read the foregoing 18 page statement, and declare that it is true, accurate and complete to the best of my knowledge and belief.

Executed on April 5, 2013.

*Executed on April 15, 2013* 



Subscribed and sworn to before me  
this 15<sup>th</sup> day of April, 2013



Notary Public

My Commission expires on: For Life



Paula Ann Pontiff  
Notary Public # 49283  
Terrebonne Parish, LA  
Commissioned for Life

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## AFFIDAVIT

Our names are Shirley Tillman and Donald Tillman. We are submitting this statement without any threats, inducements or coercion to Shanna Devine, who has identified herself to us as an investigator with the Government Accountability Project. We are married, and have lived since 2006 in Pass Christian, Mississippi, which is located along the Gulf of Mexico, approximately 120 miles from the location of the Deepwater Horizon explosion. The Gulf, the Bay of St. Louis and the bayous and marsh areas that flow into it, surround where we live. We lived in Long Beach, the town over, for over 30 years. We were involved in the BP oil spill cleanup activities through the Vessels of Opportunity Program (VoO) program, which BP created to employ private boat owners and workers to clean up the offshore oil. During that time we were sprayed by what we believe to be the dispersant Corexit. We have since been coping with chronic health problems. Also during the time of the cleanup, we witnessed a lot of unusual activity, some contrary to cleaning up the oil. However, we did not receive cooperation from government officials when we tried to report these concerns. If in sharing our knowledge it would help one person get medical attention that suffered from the oil spill, that's what this is about. We give permission for this statement to be used.

*Donald Tillman (DT):* I'm a contractor for a company that builds waterfront properties. However, after the oil spill the jobs that we had lined up fell through, because no one wants to build waterfront property when you have an oil spill. In order to subsidize my income, my brother, who became ill, asked me to run his boat in the VoO program. Before I become a contractor I was a licensed tugboat captain for 35 years. I have worked in the water all my life. I had an unlimited OUTV (Operator of Uninspected Passenger Vessels) license, which is a Captain's License, for boats up to 1600 tons. My brother was under contract by BP, and I went on there as a captain to run his boat from June 13, 2010 through August 13, 2010. I was a captain for most of the time, however. In late July I got HAZWOPER training, and then cleaned up the oil directly for two months.

*Shirley Tillman (ST):* I would go out on the boat with my husband and work as a deckhand when one of the other deckhands needed a day off. In the beginning when the oil and dispersed oil would get on the boat, I would try to clean it but I could not; it would just smear so I stopped trying to clean it.

### 1 .DAILY ROUTINE

*DT:* My brother had already been working a month or so straight when he started having health problems in June 2010. He had to work every day. That's just like when I took over; at one point I worked 60 days straight, every day for 12 hours a day. I was getting up at 5:00 in the morning to get to work at Pass Christian Harbor. Parsons was the company running the cleanup site for BP that I worked at, and they would hold you at the site until 8:00 am or 9:00 am before you went out. We had morning briefings, where a safety guy would come. But all he talked about

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was drinking plenty of water and dehydrating. Then an official from the Coast Guard provided the weather forecast, and eventually he would tell you when to leave. Sometimes it might be weather related, but for the majority of the time it was to wait for these other boats to clear. They were from 17 to 24 foot skiff style boats. Most were Carolina Skiffs. We didn't ask questions, we thought we're here to clean up the oil and you do what you're told to do.

*ST*: I would occasionally go out with him on the boat, and in August we began noticing these other boats Donald mentioned. They looked like Carolina Skiffs, which are small motor powered boats with tanks on them that were supposed to be skimmers, according to the Coast Guard. A skimmer essentially is used to vacuum oil from the surface water. But if you'd looked at the tanks you would know that they had never skimmed oil, because you could see in the tanks. It was a clear white plastic. You could tell they didn't have oil in them, because once you got the oil on something you could hardly get it off. Also, these spray boats were zigzagging, and in one of the pictures that I took on August 8, 2010 you can see a helicopter directly above one of the boats. That photo is included in this affidavit as Exhibit 1. In the VoO program they would have helicopters go out and spot where oil was collecting, so that they could supposedly have crews go to that area to clean it up. So to me it appeared that the spray boats were just touching up oil areas with dispersant before they came in and we went out. Tanks were located toward the front of the boats. They were nearly clear plastic containers; if a tank had oil in it we would notice.

*DT*: BP would make changes to the rules and procedures daily. We didn't know why or ask why. For example, early in the VoO program we were required to have one HAZWOPER (Hazardous Waste Operations and Emergency Response) certified worker on every five boats, to pick up the contaminated oil. Then it changed to one HAZWOPER certified worker on each boat. Randomly safety representatives would join our boat to make sure we were following procedure, but they were not available until August, 2010. An air quality specialist from a private environmental company took air samples on our boat. He would strap equipment to wires on our boat and check it throughout the day; however, he did not share his findings. August 7 was his last day with us. We got sprayed by dispersant on August 8 (detailed below).

Most captains didn't have HAZWOPER certification, so Parsons bused people in who were certified. They would bus these people in and line them up and tell the captains, "Pick who you want on your boat today." We chose a young man named Eric, and he asked me, "Out of all those people, why did you pick me?" I responded, "Because you're the only one who looks like you didn't just get out of prison." He started laughing and I asked him what was so funny and he said, "Most of those people did; even my supervisor just got out of prison."

We would go out in a task force with a group of 25, and then we would be broken into five groups, with one lead boat in it. You had to have at least one Coast Guard member in your group of at least five boats. Sometimes you would have a national guardsman on the boats too. But the Coast Guard told you when to leave the harbor, where to go, and how fast to go. Often which way they wanted to get you to go depended on which way these other boats were coming, so you

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wouldn't come in contact with them. That's what we determined later on, after we got sprayed and determined the boats were in a local holding location. We also concluded that they were likely spraying Corexit, because we could smell it as we went out. The dispersant was very pungent; it gave off a strong chemical smell. Before the spill, sometimes at Pass Christian Harbor there would be an oil sheen due to boat motors running and so forth, but we have never smelled anything like this.

## 2. INADEQUATE SAFETY EQUIPMENT

*DT:* When we went out in the boats, we had little to no safety gear. In the beginning they told us we had to wear hardhats, and you would move and the hardhat would fall off. If you go to grab your hardhat, were you going to fall overboard with it? Some of the things I could understand, but others were just totally ridiculous. Nobody had respirators; I wouldn't know a respirator if I saw it. We had to wear our life preservers at all time.

I got the HAZWOPER training in late July for three full days. After I received the training I was able to clean up the oil and pull boom. The boom used to clean up the oil before it hits shore is a large absorbent material tied together in sections, with mesh on the outside to keep the oil compacted. Some of the trainings, such as Hazmat, required safety equipment. Parsons should have given you big respirators, we learned subsequently, but they didn't even though we were out in the open and exposed. I brought a couple of paper respirators for myself, but they furnished none, not that I was given. When I was doing the boom, I used the ones I brought. We put on the little rubber gloves, a little suit, and we would tape them - all the stuff you're supposed to do when you're working with hazardous materials.

Parsons rarely had what you needed or were required to have on your boat, such as the boom. In the first week of August, when the air quality safety man was on the boat, there was so much oil that we had to bring boom from Pass Christian Harbor to Long Beach so that they could block areas off; oil mousse was floating into the Long Beach Harbor. However, all five boats had to stay together as a group. In effect, it took an hour for five boats to stay in a group and deliver boom, even though our boat was the only one in the group actually delivering the boom; we loaded 15 bags of boom to take to the harbor. It was a complete waste of time and resources, because the other boats could have been laying and pulling boom and actually cleaning the oil. It was a dog and pony show.

Once the well was sealed it was evident that BP was trying to finish the VoO program. The equipment supplier informed me that the contractors were supposed to furnish all of the equipment, but BP was cutting them back; they couldn't give it to you, such as the boom or duct tape. In effect, we couldn't clean the oil. Following procedure, when we pulled the boom up and placed the contaminated oil in a regular clear garbage bags we put duct tape around the bags and put coordinates on them. There was a supply instructor that had a tractor trailer that would distribute supplies each morning before we went out. However, we had to fight for garbage bags

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to put the contaminated oil in. We had to fight for suits, rolls of tape, rope. In the line at the supply station, they would have too many people waiting. When you got up there you'd tell the guy what you needed and he'd say, "Well I don't have that, you're not getting that, this is all you're going to get." It often happened with Hazmat suits. And sometimes if they had a suit, it wasn't the right size. You can't take and put a 300 pound guy in a medium or small suit. And we had some pretty good sized guys down there.

We even had trouble getting boom. If you go out and use six sets of boom and go back to replace it, they didn't even want to do that half the time. There would be times when they wouldn't even let you pull boom, and you'd ride around with boom on your boat for a week. But you always had to have boom available on your boat. One of the supply guy's positions was, "Well you don't need all that boom on your boat, you're not pulling it." But what if we came across oil we needed to cleanup? How are you going to pull boom if you don't have it? His response would be, "Well, you don't need that."

When we'd have our briefings in the morning workers would ask, "How come there's so much trouble getting supplies?" and Parsons would respond, "Don't worry, we're going to take care of it." But they never did. It was just, "Hurry up and get your stuff, get out of here. The Coast Guard is going to call you when it's time to leave the Harbor."

### 3. VOO INSTRUCTIONS: "DON'T CLEAN THE OIL"

*DT:* When I first started in the VoO program in June 2010 it wasn't quite as bad, because the oil hadn't reached us yet. About the end of June oil started showing up on a regular basis. The water started getting more sheen. It was not big heavy patches of what crude oil normally looks like. Rather, it was like lumped up stuff that already had been dispersed and everything. It looked like patties or tar balls. They call these tar patties, because some would be anywhere from two inches to eight feet wide.

However, the majority of the time throughout the cleanup we were told to just to call in the coordinates from where we identified the oil and keep up surveillance. In total, they probably allowed us to collect about four to five bags of oil, which each weighed thirty to forty pounds. We were told, "Don't touch anything." These instructions came from the head coast guard operation Seahorse. Every time we would call something in, Seahorse would tell us to go the other way.

*ST:* In the beginning in late June and July 2010 when we would go out working and see the oil in the water, it was called either oil moose or oil sheen because it had been dispersed so it wasn't the long strains of oil. Rather, oil would be in clumps and almost looked like rubbery like stuff. People would say, "I found oil, come here" and it would show up on the news; you know, the media would go and try to take it. The Coast Guard and the Mississippi Department of Marine Resources (DMR) would say, "Oh, that's just algae."

After the oil first reached Pass Christian, around late June and early July, its official identity changed from algae to fish oil, instead of oil mousse and oil sheen. Later, on August 1, 2010 we went out to the Gulf Port area and saw oil. Our Coast Guard contact on another boat in our group said, "Don't contain the oil, it is just fish oil." Two photos that I took that day are included in this affidavit as Exhibit 2. After he provided those instructions we were immediately sent back to Pass Christian Harbor. By living here all of our life, we know what we have seen in the past. We've had shrimp boats, we've had oyster boats, and from what you know, through experience, and then all of sudden to see what's washing up and what's floating by the boat, we had never seen anything like that before, stretches of oil the size of football fields. The government's response was insulting because we knew that it was not algae or fish oil, it was dispersed oil.

On more than one occasion my husband just begged to drop boom, but they wouldn't let him. We could smell it - football fields long of oil sheen with clumps of the oil in it. The following day we would be sent to a different location. One day in late July when we went out oil and sheen was everywhere. There was a man close by fishing for pleasure, and he asked us why we weren't cleaning the oil. This is what was so concerning: As happened previously, that day the Coast Guard directed us not to drop boom and instead sent us in the opposite direction of the oil. The following day Coast Guard Admiral Thad Allen stated that there was no more recoverable oil in the Gulf.

*DT:* I think I've got experience enough to know it was dispersed oil, because before I became a contractor I was a licensed tugboat captain for 35 years. I worked in the water all my life; I know what water looks like and what it's not supposed to look like. Boats leak, and sometimes when your engines run it might drip into the water. If you don't have a proper containment on your boat to catch the run off oil, it gets mixed up in the bilge water. Pumps automatically come on and pump the bilge water into the ocean, which can cause an oil sheen. You might be putting a quart of oil or diesel fuel into the water and the Coast Guard, DMR and the Mississippi Department of Environmental Quality will fine you heavily - hundreds or even thousands of dollars. All of the agencies are waiting to get their hands on the fine money. For instance, after the spill a young boy was working on his boat and the bilge pump kicked on and got some oil into the harbor. He had to pay thousands of dollars. So if they are going to fine me for pumping my bilge out, how come they didn't properly identify the oil sheen and dispersed oil and allow us to clean it up?

I spoke with a young man who worked on a skimmer boat and would vacuum the oil by the islands. After he stopped working, he shared with me that in August 2010 they would go out to Cat Island, but if it was too big of an oiled area, they boomed it off as best as they could, they put a bowie in the middle of the oiled location and the next day they would be dispatched out there to pick up the boom and the bowie, and all of the oil would be gone; it would just be foamy stuff.

There were instances when the Coast Guard would tell us, "Put the boom out," and five minutes later they were making us pick it up. What was that all about? Why wouldn't you let us mop up

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what we had here? They would not let us clean up the oil. There were several times when we identified oil in the water, and a lot of the fisherman down there made remarks, "Well, what are we doing down here if they're not going to let us clean up?" Often the Coast Guard would not let you drop boom; they would send you in another direction from the oil that we located.

We always thought when we were working that it was just a very unorganized project. But when you start taking it and adding everything up after the fact, they knew what they were doing. They were keeping us in that harbor for a reason. They were making us go at a certain speed to a certain place for a reason – to not come in contact with the unmarked boats that sprayed dispersant (detailed below). All these things started to add up. And all we wanted to do was clean up the oil. But we were not allowed to do very much of that. I put boom over board and just started to spread it and pull it and they'd say, "abort." Now, why would I put boom out on all this stuff and have to pick it up without collecting oil.

On August 13, 2010 we were one of the last groups to be laid off. I don't know how many hundreds of boats got laid off before we did, but they kept phasing it out until there were no more boats. It wasn't like they just laid us off because we did something wrong or anything like that. When they capped that well they started taking and cutting back on everything and winding it down.

#### 4. SPRAYED BY DISPERSANT

*ST:* Before getting laid off, on August 8, 2010 somebody must have got their connections crossed. As our boat was going out into the Gulf, these spray boats were coming in. But after they passed us I'd been taking pictures of the wildlife and the water, and I happened to zoom in on them and I saw them spraying something on the water. It was coming from a garden type hose but stronger. We were probably two football fields away, so I did not think about it coming back. However, these boats were up wind from us; as we were going west the stuff they were spraying came back on us.

A National Guardsman was on our boat that day. When my husband realized we were getting sprayed he ran into the cabin and closed the windows. Most of the people on the boat, including the National Guardsman, followed my husband into the cabin. I stayed on the deck to try and take pictures. The skiff photos were taken south of the Bay of St. Louis Bridge. The bridge is west of the Pass Christian Harbor. Three photos are included in this affidavit as Exhibit 3. I never would have stood out there to take pictures had I known what I do now about the effects of Corexit and the fact that it has never been tested on humans or animals. I did not think it was a public health threat, because it has been approved for use. I went into the cabin after I sprayed and tried to wash my face and hands but it was already in my eyes, nose and probably lungs by then. My husband immediately contacted the Coast Guard official who was in the group with us that day, but on a separate boat. Within minutes, the Coast Guard supposedly dispatched helicopters and a boat to investigate these boats. Most of the government representatives and

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safety people that rode on our boat were great people, doing their jobs like we tried to do ours. We didn't talk business, such as what the air quality specialist was finding or whether or why the Coast Guard wasn't monitoring the unmarked spray boats more closely. However, the next day after I was sprayed a Coast Guard official asked my husband for copies of the photos that I took. As soon as I handed him disk he told me that the unmarked boat I had identified was in the VoO program and was just rinsing its tank. This didn't add up, however, because the Coast Guard always told us when to leave the harbor, where to go and how fast to go. We had to have flags and transponders to identify us as part of the VoO program. I did not see a flag on the boats that were spraying, and even the Coast Guard officials did not seem to know anything about the boats when we reported them.

*DT:* The captain of that boat that was sent after these unmarked boats is dead now. All I know is that he passed in the summer of 2011. Within thirty minutes of trying to chase the boats he was called back; he couldn't catch up to them. We later discovered that they were going back to their dock at Henderson Point (detailed below), which was located in the direction they were going. We don't know anything about his health or the cause of his death. He got us in touch with Matt Guttman from ABC news. One time I spoke with a supervisor at a staging site for the Carolina Skiffs. I asked him, who originally opened it as a staging site and he said that it was U.S. Environmental Services and an additional company. In August 2010 I saw what appeared to be empty Corexit tanks at the staging site. Two photos of the tanks are included in this affidavit as Exhibit 3. I didn't even know what Corexit tanks looked like until weeks later; I just kept seeing these semi-clear plastic empty tanks.

*ST:* We knew the captain well, we grew up with him. He was a commercial fisherman, and I believe in his 50's. The Coast Guard sent his boat to chase, to try to see where this boat that we reported was going. The boats were zigzagging back and forth by the bridge down here, and when they saw that the Coast Guard sent this captain to turn around and go follow them, they took off. Most of these boats had 150 horsepower on the back. There was no way we could catch them in our boats. When we returned that afternoon from the whole episode, the Parsons supervisor told me that before that event they identified the boats and were trying to catch them, but they could not catch up. He told me one day he would write a book about all he was aware of. He was speaking in general terms, because he too got his orders from the Coast Guard, and they changed orders without reason or rhyme on a daily basis. For example, we would change routes unexpectedly, or be authorized to lay boom one day but not another.

The day that we were sprayed, when the Coast Guard turned us back around to go east you could see the white foam in the water where the spray boats had been. A photo of the white foam is included in this affidavit as Exhibit 5. In fact, the Coast Guard official told us to drop boom over it, but it was useless because we were collecting foam at that point, not oil, so he then changed his orders to just collect the boom. By the time we got in that afternoon, it was all over the harbor that we got sprayed. We would not give interviews for a long time after that, because we felt the government was supposed to be taking care of this and we weren't getting into it. Oddly, our

supervisor at Parson's was unaware of the incident. We informed him of what happened and he shared that he had been trying to identify the unmarked boats as well, but they were too fast and would always get away. I told him I took photos and he asked for copies. About 30 minutes later, after I had returned home, Donald called to tell me that the Coast Guard wanted a disk of the pictures.

#### 5. COAST GUARD "INVESTIGATION"

*ST*: I made the Coast Guard a disk of the photos and took it down the next morning, on August 9. As soon as I handed the disk to the Coast Guard official presiding over the staging site that day, before even looking at the pictures he proceeded to tell me that they had investigated the incident, that the unmarked boats we reported were in the VoO program, that it had just not been documented - although he also stated that it hadn't been verified - and if I had seen them spraying anything into the water they were just rinsing out their tanks.

Why would a supposed skimmer boat be rinsing out their tanks? Were they putting the oil back into the water, because what I saw was not oil coming out of the sprayer, it was just like clear stuff. During that exchange, the Coast Guard official also asked me, "Don't you think that if they would have been spraying dispersants into the water, they would have been wearing safety equipment?" I told him, "From what I've seen around here, no". All they had were box fans on their boat, which meant they had a power source to skim oil or pump Corexit; they didn't have any kind of respirators or anything. That's obvious in my pictures. You know, they were just guys on the boat.

I have spoken to some people since then who did not have safety equipment when they worked and sprayed dispersant. They were working out of Louisiana, and one gentleman in particular was the supervisor on a cleanup crew and firsthand witnessed a lot of things. But most people are afraid to get involved in anything because of repercussions, you know. People were desperate for work. Most of the spray boats and the people who worked in Mississippi on the cleanup were from Louisiana and Alabama. Almost all of the tags were out of state tags for boats at staging sites. My friends from Louisiana told me the same thing; Louisiana workers were from Mississippi and Alabama. Why didn't BP let workers work in their own state? A lot of the beach cleanup crews were from all over the country. I think now, looking back, that these people would go back home, and if they go sick from the oil clean up, how would they know and who would they tell?

My husband and I have not been contacted by the Coast Guard since I provided the photos. And the funny thing was that the Coast Guard official claimed that they conducted an investigation within less than a day. However, they never asked me for a statement or my husband or any of the other five boats working with us that day. I think it's kind of funny that as thorough the government is usually on paperwork, they would have at least had us sign our name to something. So, what kind of an investigation was that?

## 6. HEALTH PROBLEMS

*ST:* Immediately after I was sprayed I started feeling the effects of this stuff. My eyes started watering, my nose was running and I was coughing. My husband's problems began a few days later, and then escalated. To our knowledge there was no kind of medical person at all on site when we returned from the water that afternoon. Our supervisor was not informed by the Coast Guard that we had been sprayed; when we checked out he was unaware of what had happened. Prior to the exposure we didn't have any eye problems; my husband and I both always have been healthy people. Now his whole eye is messed up, completely irritated and red. It wouldn't clear up with eye drops. Finally we broke down and went to doctor and got medication. Usually my eye problems are contained to one side of my eye. We don't even wear glasses except to read.

Before the oil spill I saw the doctor because I was sick maybe one time in five or six years. We had to give up our insurance right before the spill took place, because the premiums went up and we just, you know, couldn't afford them. Since our exposure, both Donald and I have been to eye doctors, because it just doesn't get better sometimes. You have to get antibiotics. The headaches are relentless. Everyone has headaches, but when you go from maybe one, two, or three a year to maybe two or three a week since the oil spill, it's like you know what's normal for you and what's not. I used to have migraines. These weren't like migraines; they were just horrible headaches where you hurt bad and get nauseated.

Two or three days after I was sprayed I had nausea and diarrhea. I couldn't breathe or my nose would run like a faucet; it was continuous. A few days after I was sprayed I developed itchy batches of rashes on my skin. I would have itchy batches on my skin, but I still went to the beach to take pictures. I put topical cream on it, and it would go away. I didn't break out in a bad rash until January 2012. These little fine bumps were all over my face and body. I had to go to a medical clinic, and the doctor told me that it was either an allergic or chemical reaction. I was given steroids and a topical cream. After three days the rash went away. Donald had the rash, too, and my daughter in law had a similar experience in the summer of 2011.

Now I have good days and I have bad days, you never know what you're going to feel like the next day. Donald and I still have upper respiratory and sinus problems. Fog makes our sinuses worse. If we wake up and can hardly breathe, we can tell that it is foggy outside. I have thrown up more in the last year than I probably have in the last 20 years. Some days it's so bad that it happens in not just one or two episodes but goes on all day long. And then other days it's just, you have no energy, you're just completely drained for no reason at all. You wake up more tired than when you went to sleep. Just common, everyday symptoms, but they're not normal symptoms for me, and never have been.

*DT:* The only health problem I had before the spill was your common winter cold symptoms and headaches that you don't normally get in the summer time. And basically all this stuff here is common sense. You know, the doctors want to treat you with antibiotics for cold symptoms that

you don't have during the summer. We're still all congested now. We went up North Mississippi in the summer of 2011, and this stuff cleared up. We came home and the health problems immediately returned. Three weeks later we went to Arkansas for a week, and all the congestion and stuff went away. We come home, and two days later it was back. This pattern continues.

*ST:* In addition to going on the boat with Donald, I would take pictures on the beach to document the oil spill in June 2010. But I haven't been to the beach in awhile, because every time you go down there, for the next two or three days it's like you pay for it with bad headaches, nausea or respiratory problems. But I decided in early August 2011 that I was going to go down there to Pass Christian Harbor and take more pictures. And then the very next morning I woke up and a vessel in my eye burst again for the third time. And it's taken like three days to get over that.

In January 2011 my husband and I got Volatile Solvent Profiles. By then it was several months after we had been working on the cleanup, however, the test still found traces of chemicals in our body. We're we continuing to be exposed somehow? From what I've learned, our levels are low compared to a lot of people who have fallen ill from the spill but high compared to the average person. In both of us, the test detected chemicals found in the crude oil or Corexit, including ethylbenzene, m,p-Xylene, 2-methylpentane and 3-methylpentane. It's been really hard to get an accurate diagnosis or treatment, because none of the local doctors will even admit there is a problem. So we have not been able to consult with a doctor candidly about the prospect of our illnesses being connected to the chemicals from the oil spill. Our grandson also got really sick after the oil spill, and the doctors ran us in circles trying to determine what the problem was. When his mother brought up concerns about it being related to the oil spill, they would not even consider that possibility. There's one friend of mine who happens to be a doctor, and he's very well aware of what's going on but is afraid to take a hard stand on it. He is an emergency room doctor.

We didn't become mad about how the spill has been handled and our health problems, until our two year old grandson's blood test came back positive for four chemicals found in the oil and Corexit: hexane, 2-methylpentane, 3-methylpentane and isooctane. His exposure surprised us, because since the spill he did not go to the beach or eat any seafood. However, when he began getting sick in September 2010 his life force left him. He went from running all over the place with high energy, to just lying on the floor some days, just so sick. His symptoms included frequent vomiting and ongoing respiratory and sinus problems. We felt like "Damn you BP," because we knew by then that BP had done this to our grandson. Prior to seeing how he was affected, we wouldn't conduct radio interviews or go on film. We wouldn't do any of that, until his test came back. Then our mentality shifted to, "We'll do whatever is needed to raise awareness around the public health impact from the oil spill."

Some people still don't know why they're sick. I mean, even neighbors, you'll be talking to them and they'll go, "I've been sick for months now, it goes away and comes back." And I'll go, "Did you smell a lot of the burning oil during the spill?" and they'll go, "Oh yeah, I smelled that every

day for weeks” and I’ll go, “Well guess what, you probably have that in your body.” The smell was so bad around here when they were burning the oil for weeks in May and June. We would go outside and turn around and come right back in. I’d think, “Is that smell going to get into our home and in our clothes? How are we ever going to get rid of that?”

*DT:* It got in our bodies instead.

*ST:* Coast Guard Admiral Thad Allen said that the dispersants were only sprayed after July 15, 2010, on a case by case basis. Dahr Jamail of Al Jazeera was down here in October 2010 when we took water samples. The samples came back positive for dispersant and crude oil.<sup>1</sup> If the dispersants only last for 28 days, why was it still showing up in October?

## 7. UNMARKED BOATS AND SURVEILLANCE

*DT:* We didn’t realize odd patterns with these Carolina Skiffs until August 8, 2010, the day we got sprayed. Then, once the Coast Guard told us that we didn’t see what we saw, the very next day we located a staging site about two miles from our house that a VoO captain had told us about. We ultimately found three compounds – or staging sites – that sheriffs of the county would be monitoring heavily. The location close to our house was at Henderson Point. The second location was in Hancock County and the third staging site was located off the interstate in Gulfport, at corner of Canal Road and I-10. At least in Pass Christian Harbor, prior to the spill there was not security watching these boats, much less the sheriff’s department. We started documenting the sheriff’s department and their unusual behavior at these compounds after we got sprayed. From what we observed, the behavior of the boats and sheriffs continued at least from August 8, 2010 beyond September and October 2010.

At all of the locations there were one or more guards by the entrance and a sheriff’s department vehicle from the respective country situated next to the boats. I did not understand why they had this additional security, especially because some of the staging sites were already fenced in. The location on I-10 had an eight foot fence all the way around it. There was a guard at the gate and other guards all over the place, in addition to the sheriff’s department vehicle. What is so unique about these sites that you have to have law enforcement watching the inside of a compound that is already secured?

Throughout the cleanup, these boats were coming back in as we were going out at eight or nine in the morning. It didn’t make a lot of sense until it started occurring all the time. We believe that during the daytime you’d have other boats and helicopters locate oil plumes by stopping bowies and providing locations for them to go back and spray at nighttime. Then planes would touch up with dispersant at nighttime. Then the Carolina Skiffs would go out there and touch up in areas as well with dispersant. One worker who skimmed surface oil explained to me that when an oil

<sup>1</sup> Dahr Jamail & Erika Blumenfeld, *The Tragic State of the Gulf of Mexico: Sampling Reveals Oil and Dispersants on Mississippi Coast*, Truthout, Jan. 12, 2011, <http://archive.truthout.org/the-tragic-state-gulf-mexico-sampling-reveals-oil-and-dispersants-mississippi-coast66726>.

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patch was too large to skim, he and the other workers would be instructed to boom the area and leave a bowie. The following day when they would collect the boom, they would see nothing but white foam, which is a sure tale sign of dispersant. This happened repeatedly. C-130's were spraying Corexit for months out there.

*ST*: You couldn't see anything at night when they'd spray. We tried videotaping them going back and forth in August or September 2010. Before the well was capped, the news reported that they only sprayed by the wellhead through subsurface spraying, which is not the case. They still have C130s at Stennis International Airport in Hancock County, Mississippi and Marine Spill Response Consortium (MSRC) planes, which are strictly for spraying dispersant. We would watch them at night out by the islands, which are about 10 nautical miles from the beach. We would watch them go back and forth and back and forth, flying at low altitudes between islands. On videotape all you could see was this little ball moving around on the tape. Before the spill I had never seen planes flying that low or directly over our heads. They would fly over our home or at the Pass Christian beach. We have pictures of them so low that we could see the people in the planes. A photo of a low flying helicopter is included in this affidavit as Exhibit 6. We are surrounded by water on three sides and we have an airport 15 miles east and another airport 15 miles west. Even now C130s, Coast Guard planes and helicopters continue to make loops repeatedly. It wasn't like this before the spill. To this day there is sheen on the water.

After a tropical storm in August 2010 BP took all of the recognizable spray boats out and moved them to a big staging site in Gulfport. You could recognize the boats, because in front of the consul of the boat there was a big white tank in a little cage structure. It was probably a two hundred gallon tank at least. I do have pictures of tanks at the same staging site with the sheriff's department car sitting right there by the boats. A photo of the sheriff's department car at the staging site is included in this affidavit as Exhibit 7. I've seen the same tanks and they are dispersant tanks. They are the 330 gallon white tanks from Snyder Industries that basically have pictures a friend of mine sent me indicating that's what the Corexit came in - tanks from Snyder's Industry's. Al Jazeera reporter Erica Bloomfield also came in October 2010 and got barcode numbers off of the tanks at the Gulfport staging site. However, when BP started relocating back to the Henderson Point staging site, it was a different type of boat - like pleasure boats and metal oil mop boats.

## 8. GOVERNMENT INVESTIGATIONS

*ST*: In October 2010 representatives from the National Oceanic Atmospheric Administration (NOAA) and the Department of Fishing and Wildlife (DFW) showed up at our door. They had been by earlier in the day and left a card at my door with a message to contact them. Their cards read special agents, and they said they were here investigating the use of Corexit in inland waters. They were very nice, but I believe they were overworked; they are just two agents responsible for three states. They told us that they had recently received complaints of Corexit being sprayed in inland waters. I had been working with other people collecting water samples

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the day before, and there were two identical samples taken from the same spot at the same time. I said to NOAA, "Well here, if you're investigating the use of Corexit, you take this sample with you, and we'll see if your test results come back the same as the other test results." I had to do the chain of custody, and I've got the receipt. They also contacted me about the dead turtles. In April 2011 I documented 39 dead turtles, and from January through April 2011 I documented 57 dead turtles.

After speaking with them for several hours it became clear that they were most interested in the photos I had taken. They were investigating the use of Corexit, and they wanted to see the photos of the spray boats and Corexit tanks and planes. At that time I probably had 5,000 to 10,000 pictures. They were all mixed up because I had no idea this is what they were interested in. I have pictures of the dead birds, marine life and wildlife that are usually only found in the marshes. Six photos that I took of oiled animals are included in this affidavit as Exhibit 8. In the spring of 2011 I found a dead armadillo on Long Beach. In May 2011 I found a dead raccoon in two to three inches of water, muskrats, possums and one wild pig in Hancock County. In September 2011 after tropical Storm Lee there were places on Pass Christian beach where I couldn't walk within 10 feet without witnessing a dead bird. I heard from friends that it was that way everywhere along the coast. Maybe we would see an occasional dead bird before storm, but after the storm the tide washed up their bodies and they lined the beach. Rescue people were swarmed with calls. What was peculiar is that all these animals lived in the marshes. It was unusual to see these dead out there. I am concerned that the spill has also affected the wildlife that lives around the bayous in the marshes.

The special agents and I were talking as I scrolled through the photos for them. They kept saying things like, "We just found out about reports of spraying inland" and so forth. I asked them, "Wouldn't it be easy for you all to get the records from the Corexit manufacturer Nalco for how many gallons BP has bought from them to use to spray down here? Wouldn't that be a lot easier, since they've admitted to spraying 1.8 million gallons?" They responded, "Oh no, we can't do that, it's way too early in the investigation."

From that point on I felt they were just here to see what pictures I had. I would show them a picture of a Corexit sprayer or the skimmer boats, piles of foam from when we were working on the VoO program, which was what the water looked like the day when were sprayed by the unmarked boats. After three hours they had another appointment, so they asked for a copy of some key photos that I agreed to provide them, specifically the Corexit tanks and the boats that contained the tanks. The following day, a friend of mine called me from Ocean Springs and said, "There are big piles of white foam washing up here that look like dispersed oil." I said that I knew just who to call. I called the special agents with NOAA and Fishing and Wildlife a few times and neither contact answered. I called again a little while later to tell them about the fresh samples that they could obtain, but they never called me back. They never followed up to obtain their photos or return my call.

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## 9. FACEBOOK RETALIATION

*ST*: I didn't know a BP America (BPA) Facebook site existed, until a friend told me that lies were being spread about me on the BPA Facebook page. She told me that people were posting comments that the photos I had documented of dead turtles were not authentic, and that I was taking dead turtles to beach and photographing them and trying to make money off of the photos. I went on the BPA Facebook page and confronted the people making these false statements about me, and I also responded that I post my photos for the public for free. In addition to monitoring comments about the spill's devastation on the marine life, the attackers all comment that no one is sick from the spill and Corexit is harmless.

If someone gets on the BPA Facebook page and says "I am sick from the spill," a handful of people attack the individual that person. They have made comments that the people who claim they are sick or who take the Volatile Solvent Profile blood test are trying to make money off of the spill. I have a friend with a young son who has fallen sick since the spill. He got on the BPA Facebook page and wrote that he and other people are sick, and he was attacked. One attacker looked at his profile, identified his friends and family and sent them nasty messages. Based on other people I have compared experiences with, anyone who takes a stand against BPA Facebook page is attacked. The people making these unfounded attacks have Facebook pages but they do not have profiles, so it is unclear whether or not they are real people.

At one point the BPA Facebook page was promoting Gulf seafood. I made a comment that I choose not to eat it. One of the trolls replied that the Food and Drug Administration (FDA) has tested the seafood and found that it is safe for consumption. I responded that the last time I saw that FDA had only tested for 16 out of 60 compounds, and I choose not to eat the seafood. The next day I was blocked from the BPA Facebook page. According to Facebook's own guidelines, someone can be blocked for personal attacks and foul language, but it doesn't list anything about stating one's opinion on seafood safety as grounds for being blocked. When I was removed from the page, all of my posts were deleted as well.

## 10. CONCLUSION

*DT*: In addition to the resistance surrounding medical problems resulting from the spill, we still have oil washing up. To this day, there is oil out by Cat Island, Ship Island and Hound Island. In Bay St. Louis you can go on one of the bridges right now. When the tide is running in and out you can still see the oil slick. Where are the people who are supposed to be protecting us from all of this?

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I have read the foregoing 14 page statement, and declare that it is true, accurate and complete to the best of my knowledge and belief.

Executed on June 14, 2012.

*Donald S Tillman Sr*  
Donald S Tillman Sr.

*Shirley W. Tillman*  
Shirley W. Tillman

Subscribed and sworn to before me  
this 23<sup>rd</sup> day of August, 2012

*Leslie Ann Harvey*  
Notary Public

My Commission expires on:



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## AFFIDAVIT

My name is Steve Kolian. I am submitting this statement, without any threats, inducements or coercion, to Shanna Devine, who has identified herself to me as an investigator with the Government Accountability Project. I am the founder of EcoRigs, a nonprofit group that's mission is to assess the environmental damage resulting from the Deepwater Horizon spill. EcoRigs is composed of a team of divers. We were asked by NOAA to collect water biological samples close to the spill site, in exchange for test results and presumable compensation. NOAA assured me that it was safe for us to dive into the dispersed oil, which we quickly discovered was false. NOAA did not follow through on its end of the bargain, and cut off communication without providing any test results or funds for the sampling trips we had conducted at their request. Once I realized the health threats associated with Corexit, I alerted the diving community, so that other divers would not have to endure what my team and I have been through.

### 1. BACKGROUND

I earned a Bachelor of Arts from Augsburg College in Minneapolis and a Master of Science at Tulane University in environmental science. I was an AAUS (American Academy of Underwater Sciences) diver with scientific diving certification between the years 2004 through 2007. I have been PADI (Professional Association of Diving Instructors) diving certified for 10 years. However, before that I snorkeled frequently for the last 30 years on oil rigs. I grew up in Minnesota, and would come down and shrimp in the Gulf of Mexico during the summers. I grew up as a commercial fisherman; I was a shrimper for seven years off and on, and then I practiced longline fishing for tuna and shark. I have been working as an environmental scientist since 1997 providing environmental and natural resource consulting to the government and private sector. My day to day work focuses on National Environmental Policy Act (NEPA) documentation and modeling environmental events. I am also a water quality and fishery specialist.

I founded EcoRigs.org ("EcoRigs") in 1999. We are composed of a team of scientists and divers whose mission is to save retired platforms from removal for use in sustainable fisheries and renewable energy. However, since the spill we have been collecting and analyzing water samples from the Gulf of Mexico to be "fingerprinted" for biomarkers of BP MC 252 oil. A biomarker is an organic compound used to identify the source of crude oil. Fingerprinting crude oil was necessary to validate the source of crude oil. Crude oil is composed of a diverse mix of organic compounds and the composition of the crude varies from field to field which allows the fugitive oil to be fingerprinted and its source identified.

After the Deepwater Horizon explosion, we were one of the first groups to go offshore and sample the subsurface plume from the MC 252 field. We collected surface and subsurface water samples and marine life that live on offshore oil and gas platforms. The reason that we're interested in those organisms is that they occupy a vertical profile; by analyzing the organisms,

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we can determine the distribution of the oil in the water column from the surface through the subsurface.

From EcoRigs, I dive the most with Scott Porter and Michael Boatright. Scott has over 6,000 dives, and Michael has forensic and safety licenses. Dr. Paul Sammarco from the Louisiana Universities Marine Consortium (LUMCON) is another diver and scientist with EcoRigs whom I work closely with. I have authored or coauthored 15 to 20 publications, some of which are peer reviewed.<sup>1</sup> The self-published EcoRigs reports are doing very well, and often get more exposure than peer review journals do.

## 2. ECORIGS

EcoRigs is a small, self-funded nonprofit. Our main charter is to save some of the 4,000 oil and gas platforms after they retire. There are 4,000 platforms in the Gulf, and 1,200 are going to be removed in the next five years. The government wants to remove the platforms, because they can pose navigational liabilities. However, 20 years ago we started advocating saving platforms and before the spill we were whistleblowers; our position is that when a platform is removed the oil and gas companies are violating the National Environmental Policy Act (NEPA), because protected corals live on the platform pilings. The removal of platforms violates the Magnusson Stevens Act, which protects coral and fish; and the Endangered Species Act, because endangered sea turtles sleep and feed on the platforms.

The platforms' benefits are twofold; they benefit marine life by providing sustainable fisheries, and they offer a platform for renewable energy through wind, solar, waves, and currents.<sup>2</sup> They also make great places to sequester greenhouse gases; Massachusetts Institute of Technology (MIT) identified offshore platforms as the safest place on the planet to store greenhouse gases.<sup>3</sup> To sequester greenhouse gases you would inject them into the vacant geological formations that the well had just produced, and then seal off the well.

We are advocating rebuilding populations of fish in the Gulf of Mexico with the retired platforms because they are excellent nursery habitats. This is especially important now because there will be mass mortalities resulting from the spill. We could help rebuild the habitats by collecting larvae offshore, put them in a tank, grow them until they are large enough to fend for themselves and then release them. Organisms are floating by a platform all the time. We could grow the fish that are very difficult to grow, like the highly protected Blue Fin Tuna. We have not performed any surveys but we have observed lower populations of their prey species and know that their larvae are bound to be affected. All this takes a lot of research we need money.

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<sup>1</sup> Press, Media and Publications – EcoRigs, <http://www.ecorigs.org/Press.htm>.

<sup>2</sup> Alternate Uses of Offshore Oil and Gas Platforms – EcoRigs, <http://ecorigs.org>.

<sup>3</sup> Howard Herzog and Dan Golomb, *Carbon Capture and Storage from Fossil Fuel Use*, Encyclopedia of Energy 277-87 (2004).

We have accomplished a lot and have published numerous articles without receiving government funding or donations from oil companies.

### 3. DIVING IN OIL PLUMES

Our first dive was May 7, 2010. We wanted to see how the oil was impacting the marine life, the corals and other invertebrates such as sponge, tunicates, and hydroids that inhabit the pilings of the offshore platforms. I anticipated that the splash zone (upper 15 feet of the water column) would all be black and the attached organisms would be dead due to exposure from surface oil. We went offshore to Mississippi Canyon Block 194 to look at organisms on the Cognac platform, 26 miles northeast of the spill. On our way we didn't see as much wildlife as we normally do on our offshore trips. We saw a lot of patches of the rusty red floating oil.

The Cognac platform was located in 1,110 feet of water, and we went down to 90 feet below the surface under the platform for 30 minutes. When we arrived we only saw sheen on the water, which is un-emulsified oil. The oil evaporates and the heavier compounds start clumping together, which is pre-tar ball, pre-sinking oil. When we dove into the water we saw a subsurface plume and took video footage.<sup>4</sup> The subsurface plume is composed of small droplets of oil that sink. Their density is slightly greater than seawater. The objective of dispersants is to create small droplets of oil that sink.

The organisms that were on the splash zone of the pilings were not affected, because they were excreting some mucus and preventing the oil from sloshing up and attaching to them and killing them. They were in defense mode. That occurred for the top 15 to 20 feet, so they did not look impaired on our first visit.

CBS News saw our video and asked us to go back out to the same location on May 9, 2010. During the second dive, there was a lot of water with sheen. During that dive, 40% to 50% of the organic compounds had evaporated and the oil was still on the surface, starting to mix with water. We saw a lot of organic materials falling from the surface and subsurface plume, and the subsurface plume was 15 to 20 feet thick.<sup>5</sup>

During those dives we wore standard equipment; air tanks fins, snorkel, gloves, a 2mm wetsuit, and a hood. Even though we had our bodies completely covered, it didn't help protect us from the oil at all because we were diving with a wetsuits going down to 90 feet below the surface. However, we were not concerned about the exposure at the time, because the EPA said publicly that it was ok to dive. After those first two trips I wrote reports and put them on the EcoRigs website and submitted them to NOAA coral listserv and they got a lot of attention.<sup>6</sup>

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<sup>4</sup> Video Data: Surface Oil Slick on May 7<sup>th</sup> – EcoRigs, <http://www.ecorigs.org/EcoRigsOilSpill.html>.

<sup>5</sup> Video Data: Marine Life on May 9<sup>th</sup> MC 194 – EcoRigs, <http://www.ecorigs.org/EcoRigsOilSpill.html>.

<sup>6</sup> Report May 7<sup>th</sup> and 9<sup>th</sup>, 2010 – EcoRigs, <http://www.ecorigs.org/EcoRigsOilSpill.html>.

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Approximately two weeks later the NOAA Natural Resources Damage Assessment (NRDA) contacted us.

#### 4. NOAA: "DIVE IN; ITS SAFE"

I started commercial fishing in the Gulf of Mexico 30 years ago, but I have never seen anything like the conditions we were diving in. Occasionally, I've seen small patches of oil and sheen on the surface water, but not the red stuff. They were spraying Corexit around the time we started diving. After those first two dives, I asked NRDA staff specifically if the Corexit was toxic, and they said "Corexit only has a 90 minute half life." This was reassuring to hear because that meant that the water would not be toxic; as long as we were not seeing any planes flying around we thought we would be ok. On top of that, NOAA told us later in August 2010 Corexit would not be sprayed in the areas where we were conducting our research because the well was capped (July 15, 2010).

I don't like pointing fingers at NRDA staff. I think management endorsed a policy to deny the toxicity of Corexit, because they didn't say anything to anybody about the associated risks. In fact, they purposely misled people. NOAA, EPA, FDA and NRDA knew that Corexit and oil was a very toxic combination. There are numerous publications on the subject and there is historical data from the Alaskan Valdez spill. Why they chose to adopt this policy is really confusing. In late July 2010 BP announced that it stopped spraying dispersant for the cleanup. However, we have a video of fresh Corexit in the water from August 21, 2010 and August 18, 2011 (detailed below).<sup>7,8</sup>

I was first contacted by NOAA through an email from a NRDA contact. He asked us to collect samples and submit a research proposal for surface water samples and subsurface water samples, and then a second proposal to collect the marine invertebrates and fish that inhabit oil and gas platforms. We conducted 36 dives for NOAA. During the time that we worked with NRDA we continued to post our material on the NOAA Coral Listserv. We were seeing things that other people were not documenting. Further, I have emails between several NOAA staff, their lab personnel and BP regarding the samples we provided. We collected samples for NRDA from mid-July to mid-September, 2010. After repeated requests, in April 2012 NOAA provided us the Chain of Custody for the samples that we provided them.<sup>9</sup>

Arkansas State University also tested our July 2010 samples for Total Petroleum Hydrocarbons (TPHs) and metals; they could not afford to test Total Aromatic Hydrocarbons (TAHs) or

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<sup>7</sup> Video Data: Subsurface Oil and Dispersant South Pass August 21, 2010 – EcoRigs, <http://www.ecorigs.org/EcoRigsOilSpill.html>.

<sup>8</sup> Video Data: New EcoRigs Sampling Event 13 miles offshore of Long Beach MS on August 18, 2011 – EcoRigs, <http://www.ecorigs.org/EcoRigsOilSpill.html>. [Hereinafter Sampling Event 13 miles offshore].

<sup>9</sup> Documentation of federal government correspondence will be provided to responsible, authorized investigators with a need to know the contents.

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Polycyclic Aromatic Hydrocarbons PAHs. TPH is a term used for any mixture of hydrocarbons found in crude oil. NRDA told us they would give us the lab results from our samples. However, they never did.

## 5. NOAA RADIO SILENCE

At first everything seemed to be going fine with NRDA. We sent them two research proposals before we collected samples. They told us they looked good, and to proceed. We were speaking with four to six different scientists. However, when we started producing and sending samples in, the dynamic shifted. In August 2010, we brought about 15 samples from two sampling events to NRDA staff located at the Houma BP Command Center and delivered them by hand. In the beginning they would reply to my email regarding confirmation of the delivery. NRDA told us for several weeks that we were going to receive results. We had two more sampling events in the freezer that we were going to give them. When they stopped giving us results but continued to tell us to go out, we started to hold our samples.

I sent in a written request to NRDA several times for the certificate of analysis. They were testing for PAHs and TPHs and we wanted to know the results. I think they were going to fingerprint biomarkers as well. However, we only received a verbal response that some of the samples were positive for oil, and they did not identify it as BP's MC 252 oil. That was the extent of it. After they did not respond to our written requests, we started to figure that NRDA was going to screw us in some way. It was very very disappointing not to receive more information, after all of the conversations, preparation and dives that we invested in. EcoRigs later analyzed surface water samples from some of our NRDA's dive for PAHs and biomarkers specific to the MC 252 blowout crude oil. Concentrations of PAHs were found to be up to a thousand times greater than the U.S. EPA water quality benchmarks for human exposure. Some samples were fingerprinted and the critical difference analysis of biomarkers showed that the sample correlated with the crude oil from the MC 252 well.

There was one event that foreshadowed how NRDA planned to renege on its end of the deal. In the summer of 2010 they had a meeting in St. Petersburg, Florida to begin funding the main universities in Florida, Alabama, Mississippi, and Louisiana. At the time of the meeting we had conducted three to four sampling events for NRDA, and they did not even bother to tell us about the meeting. After that meeting, NRDA stopped communicating with us, and has not paid us to this day. For the NRDA samples, our invoice is for \$113,000. That includes hazardous pay, such as diving in the oil.

Scott was diving more than me and his health problems began in July 2010; mine began in September 2010. I don't recall if we informed NRDA we were getting sick. At that time we didn't know it was from the Corexit and oil. We were in disbelief; NRDA had told us it was safe to dive. We were suffering symptoms like nausea, headaches, fatigue, memory loss, blood in the

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stool (detailed below). In October 2010 I started to formalize my understanding of the relationship between our health and diving.

## 6. DIVER SAFETY SOS

In November 2010, I began writing a paper on our health problems. On March 11 2011, I submitted it to [offshoredivers.com](http://offshoredivers.com), because I wanted other divers to know what was going on in the Gulf of Mexico.<sup>10</sup> I also submitted it to the Louisiana Environmental Action Network (LEAN).<sup>11</sup> I had previously asked Marylee Orr, the Executive Director of LEAN, if I could reference her organization to assist divers that may be suffering from the same symptoms. After she read the paper, she asked if she could put it on her website. It focused on our symptoms and exposure. I provided a link to the videos of what we saw when diving, and explained “If you think you were in this, you better get your blood tested.”<sup>12</sup>

LEAN paid for Volatile Solvent Profile tests through Metametrix Lab, to test the blood for compounds found in the oil and dispersant. My blood was tested January 21, 2011 and levels were extremely high. The Volatile Organic Compounds (VOCs) entered through our skin when we dove. In effect, we had dermal exposure to the VOCs. The test screens for the lighter organic compounds, such as benzene, toluene, ethylbenzene and a few others. . Research shows dermal exposure symptoms correlate with the symptoms I documented: the VOCs got into our liver, kidney and fat cells. Further analysis shows that they can affect DNA replication, and potentially lead to cancer ten to fifteen years from now, as the evidence from the Exxon Valdez spill confirms. Presently, I just found out my liver is partially damaged due to exposure to oil and I suffer from chronic dermatitis on my face. My face is the only part of my body that was exposed while I was diving.

Also, the exposure has affected my cognitive abilities. I describe the symptoms as “BP on the brain.” I am the scientist. I have to think every day, and it really affects me. I have lost my memory, and it is very, very frustrating. I construct my sentences with the thought in mind that I will not know what I need to say by the time I get to the end of my sentences. If I am thinking about data and expressing references, and calculations in my head, now I prepare myself for my limitations. I noticed in November 2010, that my writing ability, ability to do calculations, and express complicated thoughts was noticeably impaired. I am not as prolific as I was before. I used to work every night and weekend and get a lot done but after being exposed, my

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<sup>10</sup> Posting of BP Oil and Corexit Found in Science Diver’s Blood to [http://www.offshorediver.com/content/index.php?option=com\\_content&view=article&id=1381:bp-oil-and-corexit-found-in-scientific-divers-blood&catid=50:the-stack&Itemid=219](http://www.offshorediver.com/content/index.php?option=com_content&view=article&id=1381:bp-oil-and-corexit-found-in-scientific-divers-blood&catid=50:the-stack&Itemid=219) (Mar. 11, 2011, 7:50 CST).

<sup>11</sup> Steve Kolian, EcoRigs, Gulf Divers Experiencing Health Problems, Blood Contaminated with Petroleum Hydrocarbons (2011), <http://leanweb.org/our-work/community/public-health/gulf-divers-experiencing-health-problems-blood-contaminated-with-petroleum-hydrocarbons>.

<sup>12</sup> Video Data – EcoRigs, <http://www.ecorigs.org/EcoRigsOilSpill.html>.

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productivity declined steadily. I have a difficult time concentrating for any amount of time in the evenings.

## 7. DETOXIFICATION PROGRAM, FRESH OIL

Fortunately in October and November 2011 I went through the Gulf Coast Detoxification Program, which is managed by Dr. Mike Robichaux, LEAN and Jim Woodworth, former director of the 9/11 detoxification program. It has helped clear some of my memory loss, and my writing and productivity is improving although these cognitive symptoms are resurfacing

October 10, 2010 was my last dive of 2010. However, Scott continued to dive throughout the winter. I dove three times in the spring and summer of 2011, and collected corals and surface water samples at the platforms on Grand Isle Block 93. In August 2011 there were several reports of oil slicks from the Macondo well. Regardless of the source, we knew there was a lot of fresh oil. On August 18, 2011 a captain took me to collect samples from Ship Island, Mississippi, 103 miles north of the Macondo well. We saw stretches of fresh oil.<sup>13</sup> I also saw what looked like dispersed oil. I was not diving, but I collected surface water samples; I had taken probably 70 surface water samples since the spill started, and this was one of the best sets. On September 12, 2011 I took samples at the end of the Houma Navigational Channel, 23 miles offshore of South Timbalier Island and about 130 miles from the Macondo well. That slick was seven miles wide, and I don't know how long it was.

Since September 2010, Scott and I have taken many samples and split them. If we had funding, I'd be analyzing those samples now. We went through the detoxification program and are giving our bodies a break. However, evidence shows that the Macondo well, MC 252, is still leaking. Pilot Bonny Shumaker with On Wings of Care is conducting flyovers and documenting large fresh oil plumes close to the Macondo well. I believe that there is a chronic leak that sometimes discharges at an even rate which changes periodically and the rate of discharge significantly increases. I fear that the leak could continue to flow for another 10 to 20 years.

## 8. PUBLICATIONS REJECTED

Six scientists, including myself and EcoRigs staff, including marine scientist Dr. Paul Sammarco, chemist Dr. Wilma Subra, environmental toxicologist Dr. Jennifer Bolin, analytical chemist Richard Warby, biologist Scott Porter, and I submitted a report on the impacts of the BP spill on human blood, seafood, biota, sediments, and water to Science, the Proceedings of the National Academy of Science (PNAS), and Environmental Science and Technology. It was turned down all three publications. The report concludes that the levels of contaminants in water, seafood, biota, and sediments are all higher than previously announced levels by NOAA and

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<sup>13</sup> Sampling Event 13 miles offshore, *supra* note 8.

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other federal agencies and universities. It took PNAS a long time to decide whether or not to publish it.

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I have read the foregoing eight page statement, and declare that it is true, accurate and complete to the best of my knowledge and belief.

Executed on May 8, 2012.



Subscribed and sworn to before me  
this 18 day of May, 2012

  
Notary Public

My Commission expires on: at my death

**PAMELA J. BROWN**  
**NOTARY PUBLIC**  
**NOTARY ID # 59733**  
**STATE OF LOUISIANA**  
**PARISH OF EAST BATON ROUGE**  
My Commission is for Life.

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## AFFIDAVIT

My name is Sydney Schwartz. I am giving this statement freely and voluntarily, without any threats, inducements or coercion to Tom Devine, who has identified himself to me as an investigator and the legal director of the Government Accountability Project (GAP).

I was hired through the Vessels of Opportunity (VoO) program out of Dog River, Alabama from May 12 to July 21, 2010. I was the Task Force leader at the time, and I had 25 boats under me. I am giving this statement to make a record of how British Petroleum's (BPs) response to the Deepwater Horizon spill skipped the usual ways to truly clean up oil spills. Despite contrary government reassurances that the oil was being cleaned up, the effort was based on chemical dispersants to make it seem like the oil had disappeared.

I live on the city limit of Mobile, Alabama, and I have worked on shrimp boats since I was three. I am now 51. As a boy, my father would tie me to the mast, the same as I have done with my son and grandson. By the 10<sup>th</sup> grade I was captaining boats. In 2000 I received my captain's license from the Coast Guard. During the past ten years I also have worked for the oil industry during the off season or when shrimp harvests were weak. I also run boats supplying offshore operations with fuel and feed.

### 1. LOCATE OIL, BUT DON'T CLEAN IT

As part of the VoO program, my boat was assigned to do surveillance and locate where there were oil slicks. In May I began as a one man boat with a team leader. It wasn't but a few days until my team leader talked me into being a team leader and then I had several boats under me. Toward the end of June the VoO program tried to create more structure, as opposed to running us out randomly, by adding Coast Guardsmen to the Task Force boats. At that point, we were not even given permission to clean the oil until the Coast Guard was on our boat. When the Coast Guard took over, they made me a Task Force leader. I was suddenly in charge of 25 boats; however, my pay did not increase. When I inquired with the Coast Guard why I did not receive a higher salary, they indicated that was just the way it was, and that I could take it or leave it. I didn't have the option of leaving it, because I was unable to make my livelihood shrimping due to the oil spill.

The VoO program had a morning group and evening group of boats, and each group had three Task Force leaders. I was part of the morning group. We were divided into three zones, and each zone was assigned a fleet of 25 boats. Each Task Force leader had five Strike Force boats, which were in charge of additional boats. If one of the boats under a Strike Force boat found oil, the captain would report it to the Strike Force leader who would then report it to me. I would report it to the Coast Guard and then we would have to report back to my home base leader. It was very frustrating for me to be in the position of Task Force leader, because I was regularly told by the Coast Guard officials that I could not direct the boats to clean up the oil that they spotted.

My zone went south from Dog River and mainly north of Dauphin Island in Mobile Bay. We stayed in state waters in the bay; we never went into the Gulf. To illustrate what I was finding, on June 13, 2010 there was an oil slick three miles long and a half mile wide. We were told not to clean up any oil we reported, however. We didn't have anything on the boat to clean it up. We

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were just spotting oil. I was angry and protested. I knew BP had the equipment - such as boom - but they were not putting it on the boats, because I had seen it on the sites. I raised noise, got other fisherman involved and threatened to contact media if they would not provide us the tools to properly contain and clean the oil.

In response, BP put oil booms and rags on the boat to clean it, but when we went back to clean the stretch of oil that we had previously identified, all we could find were bubbles. The evening before, they had contacted me and wanted a GPS number of each end of the slick. I didn't put two and two together until the next day when we saw the bubbles and realized that they bombed it with the dispersants that night. The next morning I received permission to lay boom, but the oil was all gone despite there being almost no wind. All that could be seen were black bubbles and foam.

## 2. DISPERSED OIL

I almost always saw a lot of sheen and bubbles, but at least five times I saw slicks of heavy weathered oil. The weathered oil is a brownish dark color that puts off a lot of sheen, and it has a gooey peanut butter like substance like a heavy crude oil with water mixed in that makes it. They were different sizes, but the largest slick I saw was on June 13, when I was told not to clean it. Toward July, we began to see less weathered oil and more dispersed oil. I heard from several fishermen that the VoO boats were intentionally placed in the dispersed oil to ride over it and disperse it further. Just at Dog River, there were regularly 150 boats in the water throughout the cleanup, and 170 boats at its peak.

In mid July 2010 one of the Strike Force leaders in Mobile Bay and in my zone reported oil in shallow water. They could see it; it was black in the water but they couldn't get the sorbent boom to hold it or for it to stick. We don't have that problem with undispersed oil, so we figured it was oil that had been dispersed. They could only attain about a bag of sorbent boom from VoO to clean it up. We never did hear any explanation about what it was. Since all we saw were black bubbles, we assumed a plane and some large boats had been spraying a dispersant on the oil. That is why it could not be cleaned normally.

Toward the beginning of the VoO program there was a heavily-attended public meeting at the Mobile, Alabama Civic Center with the Coast Guard. There were people from the Coast Guard, as well as senators and a lot of environmental representatives who were concerned about the use of dispersant. The Coast Guard official said there would be only limited use of dispersants, in the hundreds of thousands of gallons, and only where there would be no human contact. That is not what happened. Other workers in my zone reported to me that they saw dispersant being applied regularly from boats in all areas, and public reports confirm there were millions of gallons used. When they witnessed spraying, I asked them to take pictures so that we could document it. They were never able to get close enough to take pictures, however, because the boats would leave.

BP hired a firm called Sea Tow out of New York to do a lot of the spraying from large aluminum boats. Normally the Sea Tow boats are used as response boats if you breakdown or have an emergency. They are big boats with a lot of horsepower and they have the capacity of carrying tanks and spraying dispersant. These boats were stationed at a compound in Deer River, located

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I have read the foregoing four page statement, and it is true, accurate and complete to the best of my knowledge and belief.

Executed on July 6, 2012.

Sidney L Schwartz Sr  
Sidney Lee Schwartz Sr

Subscribed and sworn to before me  
this 7 day of 27, 2012

F. Vickers

Notary Public

**F. Vickers**  
Notary Public  
Alabama State At Large  
My Commission Expires  
March 21, 2016

My Commission expires on: \_\_\_\_\_

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## AFFIDAVIT

My name is Wilma Subra. I am submitting this statement, without any threats, inducements or coercion, to Shanna Devine, who has identified herself to me as an investigator with the Government Accountability Project. I am president of Subra Company, a chemistry lab and environmental consulting firm located in New Iberia, Louisiana. Throughout the BP oil spill cleanup I have advocated for greater worker protections and sound science around the impact of the spill on the gulf ecosystem and public health.<sup>1</sup> I am providing this statement because of the health needs of the impacted communities all along the coastal areas. There are no limitations on the use of this statement.

I was born and raised in Morgan City, Louisiana. I have lived my adult life in New Iberia, Louisiana; however, I work all over the United States and in some foreign countries. I have a master's degree in chemistry and microbiology from the University of Southwestern Louisiana. After I finished graduate school in 1966 I worked for Gulf South Research Institute (GSRI) for 14 years. We conducted cancer studies, and developed toxicology programs and methodologies before they were available in universities. Our programs were eventually developed at the national level. From that aspect I have been practicing toxicology since it was in its infancy.

After working at GSRI I founded the Subra Company in 1981. I created it specifically to provide technical assistance to community groups dealing with environmental issues, and to help them understand what was going on with chemicals to which they were exposed. Since that time I have also worked as a chemist for the Louisiana Environmental Action Network (LEAN). Before the Subra Company was formed, specialists would come into communities and evaluate particular public health threats, and then the communities would be given summaries. But no one would ever be able to sit down with the community and explain, "This is what the data really showed, and this is what you need to be looking into in your community." For thirty years I have been providing that resource.

I received the MacArthur Genius Award in 1999, based on working with, educating and empowering communities with the information they need to address environmental issues. Then they are the ones who make the difference. Since that time I've continued that work night and day, often 7 days a week and sometimes up to 20 hours a day. I was selected in 2011 as one of the 'Lifetime Remarkable Woman,' and most recently I was awarded the 2011 Global Exchange, Human Rights Award for my ongoing work with the BP Oil Spill and the communities affected by it.

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<sup>1</sup> *Local Impact of the Deepwater Horizon Oil Spill, Human Health and Environmental Impacts Associated with the Deepwater Horizon Crude Oil Spill Disaster: Hearing Before the Subcomm. on Oversight and Investigations of the H. Energy and Commerce Comm., 111th Cong. (2010) (statement of Dr. Wilma Subra, Chemist of Subra Company, Louisiana Environmental Action Network and the Lower Mississippi Riverkeeper),* <http://democrats.energycommerce.house.gov/documents/20100607/Subra.Testimony.06.07.2010.pdf>

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I recently completed a seven year term as vice-chair of the EPA National Advisory Council for Environmental Policy and Technology, a five year term on the National Advisory Committee of the U.S. Representative to the Commission for Environmental Cooperation and a six year term on the EPA National Environmental Justice Advisory Council (NEJAC) where I served as a member of the Cumulative Risk and Impacts Working Group of the NEJAC Council, and chaired the NEJAC Gulf Coast Hurricanes Work Group.

## 1. LESSONS LEARNED FROM KATRINA

I have a local parish emergency response pass that I acquired as the chair of the Iberia Parish Emergency Response Committee. The pass is valid throughout Louisiana, and in 2005 after Hurricane Katrina I went into the community every day, even when the dead bodies were still floating in the waters, and did damage assessment and needs assessment. I would sample the sediment sludge that was washed in shore as part of the tidal surge from Katrina. I would come back at night and get in touch with LEAN director Marylee Orr and tell her, "This is the place and community and supplies that they desperately need." She would work on getting those supplies into the community. Then I would go into another community and do damage assessment and needs assessment, sampling the sediment and sludge, and repeat the process.

What I found were high levels of heavy metals, organics, Polycyclic Aromatic Hydrocarbons (PAHs), and gram positive and gram negative bacteria (detailed below). When residents were allowed to return they were coming into contact with these chemicals without protection. We had about three million people come into the gulf coast to volunteer after Katrina and Rita, to gut houses and to tear down structures. They were all getting severely contaminated, and then going home without the knowledge of what had happened to them. Then they were sick one year to five years later from the exposure. There was nobody in their community to trace patterns of exposure and identify the cause by asking, "Did you go down to the gulf and volunteer?" Some of the pregnant women who had exposure later had birth defects and there were high miscarriage rates. There were abnormal pre-cancer and cardiovascular impacts.<sup>2</sup>

Marylee and I were out there informing as many people as we could that these are the health impacts associated with your environmental exposure. But how do you protect the people when state and local health agencies said it was safe to go back in to their now toxic communities and homes? We felt that was a huge exposure that occurred and was going to go unrecorded. We were really putting pressure on the federal and state health agencies to monitor what the effects were through long term tracking of the health impacts from this exposure.

## 2. FAST FORWARD TO BP SPILL; EDUCATION AND RETALIATION

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<sup>2</sup> Wilma Subra, Presentation to the Church World Service, Forum on Domestic Disasters Ministry, Princeton Theological Seminary: Environmental and Human Health Impacts of the 2005 Katrina and Rita Hurricane Season (Mar. 26, 2006), <http://data.leanweb.org/katrina/wilmadata.html>.

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The same thing occurred after the BP oil spill, regarding dangerous levels of exposure among workers, volunteers and residents. In late April 2010, before the crude made it to the Louisiana shore, which took nine days, the aerosol came on shore all the way across from Louisiana to Mississippi and Alabama to the Florida panhandle. The aerosol was dispersed crude oil. It came from the slick of the gulf and was dispersed into the air from the heavy winds of the high seas. It caused severe nausea, headaches and respiratory problems.

In May 2010 I went out and started conducting workshops for workers and their wives on health risks associated with exposure to the toxins and fumes. The people knew they were sick but they didn't know what it was from, and the media was reporting, "The oil hasn't hit the shore yet." At first the perception was that there were no health impacts. However, community groups would put the message out that I was providing the workshops, and people would quickly come out to learn what was going on. A lot of larger and national groups need a board to approve these actions, and it goes through a lengthy process which can delay our response time; I have been on boards and experienced this firsthand. Marylee and I get out there instantly. We don't worry about how we're going to pay for it until afterwards. We continue to offer these workshops.

There were two affected populations from very early on: those on the coastal area exposed to the aerosol and then to the crude as it moved in shore, and the worker population who were on the frontlines of the cleanup. The fishers couldn't go back out and fish, because the fishing grounds were closed. So quickly they wanted the jobs with BP, because they felt they knew the marshes and estuaries the best; that was their resource and they thought they could protect it the best. These workers were exposed every day, without proper training or proper protective gear.

Throughout the oil spill cleanup, worker safety trainings were insufficient to protect the health of the workers. The Occupational Safety and Health Administration (OSHA) and BP reduced the 40 hour HAZMAT trainings to four hour trainings for most of the workers. Some workers did not receive any training. Still, as part of the cleanup they came in contact with the oil and often dispersant and put out the booms. They would come home at night very sick, but desperate and needing the work. Then they would go back out in the morning and get sick all over again with headaches, nausea, respiratory problems and skin rashes; these are just some of the symptoms associated with exposure to the crude oil and dispersant. Health problems got worse from there (detailed below).

LEAN attorney Stuart Smith took BP to federal court in early May 2010, and the judge ruled that BP was not providing the cleanup workers with adequate protection and adequate training. BP signed the agreement that it would provide adequate training and adequate protection to the workers.<sup>3</sup> From that point forward the workers and their health should have been protected. BP and the government's ability and responsibility to protect these workers is not anything new. The

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<sup>3</sup> *Fisherman Win Another Round: For The Second Time, Court Requires BP To Amend Its Responder Contract To Protect Responders In Oil Cleanup*, LEAN, May 10, 2010, <http://leanweb.org/our-work/water/bp-oil-spill/fishermen-win-another-round>.

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people in Louisiana deal with chemicals and chemical toxicity in a workplace environment all the time. To allow workers to be exposed and made sick in response to an oil spill is inexcusable. We have rules and regulation on the book. We have requirements, planning, and instructions for worker safety that need to be enforced. However, even after the court ruling to enforce worker safety, as discussed below BP did not comply with the regulations and allowed the workers to be made sick.

BP and BP contractors were not providing workers with respirators, or allowing them to wear additional safety equipment on their own accord. The workers would go out, and Marylee instantly ordered protective gear. She ordered Tyvek suits, gloves, respirators and goggles and started distributing them in May 2010. However, workers told us they were not allowed to use them. When the workers on BP's Vessels of Opportunity (VoO) Program would take them out on the boats, we were informed on several occasions by workers that BP officials would threaten, "You're fired if you wear the respirators." When I was doing the workshops all day long, the wives would come because their husbands were out on the boats, and suddenly they became very concerned because they realized why their husbands were getting sick. The wives started speaking out and the workers were told if their wives don't shut up, then they were going to be fired. This was shared with me repeatedly along the coast. LEAN did convey the information to state and federal government agencies. The agencies listened to the information, but did not provide responses.

On June 22, 2010 Maureen Lichtveld, Chair of Environmental Policy at Tulane University School of Public Health, held a meeting about the health impacts associated with the spill and invited me to give a presentation. The conference was very well attended from experts throughout the country who came to speak and listen. I spoke about the health impacts and the threats to the workers and their wives. I made the statement that it is totally inappropriate for workers in a workplace environment to be made sick in 2010.<sup>4</sup>

### 3. OSHA DIRECTIVES INADEQUATE

On June 22, 2010 before the conference began, I had lunch with Dr. David Michaels, Director of OSHA. I told him about what was happening with the workers, and what the response was from BP and BP contractors. He said, "We have a problem, we have to do something about it," and I said "Yeah, I know we have a problem, and OSHA is supposed to be in charge." He said, "Well Wilma, OSHA doesn't have jurisdiction in the outer-continental shelf, offshore in federal waters. We just have jurisdiction out three miles from the coast, because that is still state waters." In turn, he argued that OSHA was not able to take corrective action where many of the VoO

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<sup>4</sup>Transcript of Presentation by Dr. Wilma Subra at 228-230, *Assessing the Human Health Effects of the Gulf of Mexico Oil Spill: An Institute of Medicine Workshop*, The National Academies, Jun. 22, 2010, available at <http://www.iom.edu/~media/Files/Activity%20Files/PublicHealth/OilSpillHealth/OilSpillHealth%20Day%201%20Transcripts.pdf>.

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workers were exposed to dangerous work environments without sufficient safety equipment. I responded that OSHA still should be protecting the health of the workers.

During our lunch, the main issue he pushed back on involved the use of respirators. He said, "If we make the workers wear respirators, then you, Wilma, will be causing them to have heat strokes." He framed it as if, by my advocating for their use of respirators, I'm causing the workers harm. I responded that the fishers participating in the VoO program said it was much harder on them not to wear the respirator and to breathe the fumes. They were the cleanup workers pulling in the booms loaded with oil that was running down their arms and their suits, and they were inhaling it. I have organized a lot of emergency response activities, and I know that if the wearing of a respirator induces heat stress then alternatively you put the body in a cool air system suit. This way the workers do not get overheated, and they do not breathe in the dangerous chemicals that are in their workplace environment.

A few positive things resulted from my conversation with Dr. Michaels. In July 2010 OSHA finally came out with a directive that the workers near the well site needed to wear respirators when they were spraying the dispersant Corexit. This did not apply to other workers, however. Additionally, in July 2010 the amount of time workers were allowed to work in the sun without a break was reduced. Prior to that directive, some of the workers on the beaches that were required to wear Tyvek suits would get so hot (due to the material, the suits retain heat) that they wore them tied around their waists and some workers didn't have them on at all. But after our conversation OSHA restricted their work time; they could only work 20 minutes out of a 60 minute period and the contractor was required to provide them shade and liquid during the 40 minutes. Sometimes the tents weren't adequate and they would still be exposed to the sun, but the break really helped them work.

OSHA's additional directives were better, but not appropriate for the exposure. Workers still weren't being provided with enough, or in some cases any, protective gear. The crude oil is in the environment, it's on the water, it's in the water column, it's in the sediment sludge, and it's on the beaches as a result. Any worker of BP or a BP contractor is going to come in direct contact with oil because they are out there to "clean up the oil." The routes of exposure of those workers are: inhalation by breathing in the fumes from the crude and/or dispersant if it was applied to the crude; ingestion because they spend their shift out there in contact with the crude and that is when they eat and they drink; and then dermal exposure, or skin contact, because a lot of them were not provided with adequate gloves or suits to cover their bodies, or when their gear ripped it would often not be replaced.

There are companies all along the Gulf coast that deal with oil spills all the time and they know the safety measures that must be taken. The whole process is already set up within these companies, and yet BP was allowed to hire cleanup workers without proper training or protective gear, and put them in harm's way through direct contact with the crude and the crude mixed with

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the dispersants. No matter how “emergency” it was, they knew how to protect those workers and they didn’t.

#### 4. HEALTH IMPACT, CANCER ALLEY FORSHADOWING

Often when you assess a health site there are a particular set of chemicals that you are dealing with and they have specific health impacts that you look at. We learned many lessons from “cancer alley,” which is along the Mississippi River between Baton Rouge and New Orleans, Louisiana. It is important that we learn from cancer alley in our response to communities impacted by the oil spill, because the long term health impacts will be very similar. Cancer alley gained notoriety in the late 1980’s due to abnormally high cancer rates along both sides of the river. The facilities on cancer alley are petrochemical bases, and in 1987 the EPA’s Toxic Release Inventory came out and showed cancer causing agents being released from those facilities, including the PAH and volatile organic compounds, (VOC or volatiles).

A lot of the industrial facilities on cancer alley didn’t have proper worker protections for decades. The petrochemical industry conducted blood and urine tests of workers on an ongoing basis, but never made that data available to the workers. However, someone with a workers union would get local data on urine and blood analysis. Through the union, I had access to the kinds of chemicals that workers were being exposed to. I could match that information with the results in their urine and their blood and it clearly would associate.

To this day, people who live in close proximity to the industrial facilities on cancer alley have increased levels of these chemicals in their blood and health impacts associated with the particular chemicals at those facilities. In Mossville, located in St. Charles, Louisiana they live in close proximity to 14 industrial facilities, the majority which release bino-chloride and dioxins and furans. Residents of Mossville have three times the blood levels of dioxin that the rest of the population in the United States has. This is due to their exposure from the air emissions, from the deposition and from the bioaccumulation, as well as the impact on the aquatic and terrestrial organisms and the fruits and vegetables.

The widespread and long lasting contamination results in long term exposure. The older people have much higher chemical concentrations in their blood. Even though the industrial facilities have reduced their emissions overtime, the bioaccumulation is continuing. It’s not like you are exposed to something, get a cold, then go to the doctor, get an antibiotic and it goes away. These are longer term exposures that build up in the body and then debilitate the whole community – just destroy the quality of life of the community.

Unfortunately the impact on the community from cancer alley has not been sufficiently tracked, and it is important that the same mistake is not made with those impacted by the oil spill. The cancer registry puts the cancer rate data out based on parish. If you look at the industrial corridor along the Mississippi River, the parishes are large but the portion on the river is small. From cancer alley you have this severely impacted community along the river, and then you have a

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large part of the parish that is not in close proximity. They combine all of that and give you a parish number instead of selecting the sections closest to the industrial facilities and coming up with those cancer rates.

In addition, most of the impacted communities are comprised of poor and minority populations, with a lack of access to health care. A lot of towns where cancer is prevalent don't get reported. You have to go to the doctor and the doctor has to take the initiative to report the incidents. And a lot of these people can't even go to the doctor because they don't have money for the gas to get to the doctor.

Marylee and I quickly employed the blood test method with the sick workers and residents in the aftermath of the BP spill (detailed below). I also developed two worksheets early in the oil spill cleanup process; a list of health impacts associated with Louisiana Sweet Crude, which is the type of oil that leaked during the spill, and a list of health impacts associated with the Corexit dispersants.<sup>5</sup> The combined short term health symptoms for include acute respiratory problems, skin rashes, cardiovascular impacts, gastrointestinal impacts, and short term loss of memory. Long term impacts include cancer, decreased lung function, liver damage, and kidney damage

When you combine the crude oil from the BP spill – Louisiana Sweet Crude - and the dispersant, the mixture toxicity is more than the additive amount; the more that they mix together, the greater the combined toxicity.<sup>6</sup> The issue is how well the dispersant was mixed with the crude in each specific location that these people were working. We compared the health impacts identified on the worksheets with the types of health impacts associated with the workers. From the beginning of the cleanup, the workers called Marylee and me on nights and weekends, and they were reporting all of the same health impacts; respiratory impacts, nausea, severe headaches, cardiovascular problems, and huge skin lesions because of the skin contact with the oil and dispersed oil, and decreased memory. They began sharing these symptoms from the first day they went to work with BP, and by May 7 we had the court hearing with attorney Stuart Smith over the health impacts experienced by the workers.

Most of the cleanup workers were hired by a huge number of BP contractors. If any of the workers claimed they were sick, their employers would send them to a first aid station, or if they were severely ill they would send them to a hospital. However, after they became really sick and couldn't work anymore, they would be laid off. When they were still employed they would call us discreetly at night to report their health problems, but then they really started to speak out when they realized there no longer was anything to lose since they had been fired for being

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<sup>5</sup> *Health Impacts Associated with Dispersants and Louisiana Sweet Crude*, LEAN, Jun. 14, 2010, <http://leanweb.org/our-work/water/bp-oil-spill/health-impacts-associated-with-dispersants-and-louisiana-sweet-crude>.

<sup>6</sup> Richard Denison, *EPA data show dispersants plus oil are more toxic than either alone*, Environmental Defense Fund, Jun. 14, 2010, available at <http://blogs.edf.org/nanotechnology/2010/06/14/epa-data-show-dispersants-plus-oil-are-more-toxic-than-either-alone/>.

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victims. They were too sick to work, and had no medical or disability benefits. There are still thousands of workers employed by BP and BP contractors all along the gulf coast, and we continue to receive calls from them regarding health problems.

Since the oil spill, we also get calls from scores of sick residents that mirror the health problems reported by workers. Based on my experience with cancer alley, this was not surprising, and I am concerned about future cancer rates among gulf residents who have been impacted by the spill. The more vulnerable populations in any toxic environment are the elderly and the children. This is of greater concern in association with the BP spill than cancer alley, because a lot of the coastal community populations depend on fishing both for a livelihood and to feed their families.

Large Vietnamese, Native American and African American populations live along the coastal areas. Before the spill they had the ability to feed their families based on what they harvested. Now suddenly they don't. A lot of the organisms have been depleted and contaminated as a result of the spill. In a lot of cases these people are hungry because they can't eat the seafood or they don't want to poison their family by eating it and they have no other source of food. Fishermen have shared these concerns with me directly. In the marshy areas you can't plant a garden. All of a sudden their vulnerability has increased exponentially because they don't have access to food.

## 5. PAH, BLOOD TESTS

LEAN and I, working with Dr. Michael Robichaux, have taken excess of 100 whole blood samples on workers and residents who have reported health problems in the aftermath of the spill. The blood samples have analyzed for VOCs, the compounds found in the crude oil and dispersant. The results demonstrate an increase in the blood concentrations of those chemicals as a result of being exposed to the crude and dispersants. The findings have been consistent with the first six blood tests that we released on January 5, 2011.<sup>7</sup> When levels exceed the 95<sup>th</sup> percentile, it exceeds the level that the general population range is, so it clearly shows that exposure occurred. People who have not been exposed to the crude and dispersants have much lower levels in their bodies, way below the 95 percentile.

When you look at the overall data from the blood testing, the highest concentrations were in current workers and former workers who could not have had current exposure; they are in excess of the 95<sup>th</sup> percentile. The divers are just below that; they actually went out and dove through the slick when it was in the gulf, and in the marshy areas. The populations living and recreating along the coast are still in excess of the 95<sup>th</sup> percentile, because there is still ongoing exposure through their environment.

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<sup>7</sup> Wilma Subra, *Evaluation of the Results of Whole Blood Solvents Testing*, LEAN, Jan. 5, 2011, <http://leanweb.org/our-work/community/public-health/bp-spill-blood-test-results-louisiana-residents>.

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We started the blood testing in late December 2010, but we already had data from Mississippi and Alabama and Florida for blood tests which informed our initial analysis. We did a survey of what their occupation was or how they thought they were exposed. I have developed an instrument of surveying health impacts. In the case of the oil spill, it surveyed health symptoms specific to exposure from the crude oil and dispersant because after the spill a lot of the communities wanted it in order to have their symptoms reported. However, when they received it they were scared that BP would somehow get that survey result and it would hurt in their BP claims, so they were very reluctant to fill it out.

Based on our findings for approximately 100 surveys, in addition to approximately 800 interviews, individuals reported being ill often, on an ongoing basis, everyday and daily. Of the individuals surveyed, 45% of the individuals reported working in the BP oil spill cleanup efforts and being exposed to the crude oil and dispersants. In addition to the cleanup workers, the coastal residents completing the survey identified being exposed to crude oil and dispersants from the BP spill. The routes of exposure identified by all of the individuals surveyed consisted of contaminated air, contaminated water, contaminated wetlands and beaches and contaminated tissue. The description of the specific exposure pathways described by the cleanup workers that were surveyed consisted of: crude oil on surface of the water in the Gulf and Bay systems; crude oil offshore; oil soaked booms; crude oil and dispersants on beaches and wetlands; sprayed with dispersants while working on the oil spill cleanup; exposed to chemical solutions used to clean equipment in association with the oil spill cleanup; and smoke from burning of crude oil. The description of the specific exposure pathways described by the coastal community members consisted of: crude oil and dispersants on beaches and wetlands; smoke from burning of crude oil; washing contaminated clothing; and consuming contaminated oysters.<sup>8</sup>

Historically worker community groups don't have any money, so if we find a contaminated area we do a few samples, demonstrate what is happening, and usually the state or the federal agency comes in and does additional sampling or require the company to do additional sampling. That way the community has identified the issue, and the agencies then help us clearly define the issue. In this case, we're identifying the issues and yet the agencies aren't stepping in and taking a broader look. Exposure from the oil spill is affecting a huge portion of the population along the coastal areas. The federal agencies have claimed that they don't have the resources to come in and evaluate the chemicals in the blood of these sick populations. So we're evaluating it.

Each blood test costs approximately \$500; \$400 for the test and \$100 to take it to the lab. We have to pay for the costs, because the people we are testing are mainly sick and unemployed and can't afford it. We're doing just a few at a time, and we're still looking for additional resources

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<sup>8</sup> *Results of the Louisiana Environmental Action Network (LEAN) Survey of the Human Health Impacts Due to the BP Deepwater Horizon Disaster*, LEAN, Apr. 20, 2012, <http://leanweb.org/our-work/water/bp-oil-spill/results-of-the-louisiana-environmental-action-network-lean-survey-of-the-human-health-impacts-due-to-the-bp-deepwater-horizon-disaster>.

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so that we can do more testing. Even though it is expensive, the easiest approach was to test for the VOCs. Critics of this test, such as the Center for Disease Control (CDC), argue that the volatiles disappear quickly. If that is the case, there is real cause for alarm. Yet, the crude supposedly stopped flowing in the middle of July 2010, but exposure is continuing to this day. *Either they don't disappear quickly, or the oil is still contaminating the region.*

The government and BP also have taken the stance that we do not need to be concerned about exposure to Corexit, because it has a 90 minute half life, which means that after 90 minutes half of the components evaporate and the other half of the concentration remains, making it less dangerous. That is not fully accurate in this case, because the compounds from the dispersant come in contact with the crude and get interconnected. In effect, the degradation does not occur like that. The real half life and range depends on the environmental conditions. The BP oil spill is really a test case, since such a large amount of dispersant has not been used before in such quantities with the large amount of crude oil. When the remaining oil and dispersants are disrupted, the compounds rise to the surface. When divers went into plumes, they were exposed.

Every time I check, there is still oil on the beaches and in the estuary systems and in the wetlands and the marshes. People go to the beaches and swim in the gulf, and report to me that they still come up stained with a brownish tan color that they believe is oil. There are still tar balls and mats and strings washing on shore every single day all along Louisiana, Mississippi, Alabama and the panhandle in Florida. Grand Isle, Louisiana gets bowling ball size tar bars, and is still full of oiled birds that are dead and dying. If you open a tar bar that washed on shore, the volatiles are still being released. This exposure extends to anyone who took home tar balls in a Ziploc bag or on the airplane. From May 2010 through early 2011, I received a large number of complaints from the baggage screeners, or inspectors at the airports because passengers had to put the tar balls in their checked baggage when the inspectors found them in their carryon bags. The inspectors had to handle the tar balls and they were concerned that they were being exposed as well; they wear latex gloves, which would not protect them from exposure to the chemicals present in the tar balls.

Anyone who recreates, fishes, is in the marsh and hunts or traps in the gulf, is still coming in contact with the crude on an ongoing basis. I took samples from Mobile Bay, Alabama in July 2011, and the whole time we were out the fishermen on the various radios were calling in about the oil. The water there was like 85 and 88 degrees, so there was constantly oil coming up and making a sheen. There were constantly mats and tar balls and oil washing in to the barrier islands. But fishermen were really concerned about that sheen, because anything they harvested and picked up through it became contaminated with the oil. It's still very prevalent.

Many of the VOCs do go away quickly. However, the oil is still very prevalent in the environment. It's not over. The main VOCs are xylene, ethyl benzene and hexane. They were known to be in the crude, to move on shore, and to be off-gassing from the crude as it floats on the surface of the Gulf and as it is in the wetlands and the beach. These are known suspected

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cancer causing agents that also cause acute respiratory problems and gastrointestinal problems and decrease lung function type issues. The health impacts and the concentrations in the blood are to be expected from this level of exposure. For those who are living a normal life but not cleanup workers, the two ways that you can be most exposed to VOCs are from filling your car with gas and smoking, However, that exposure is much smaller than what we were finding in the blood tests. In fact, we have five and six year old children who had high levels of VOCs in their blood, and they don't go out and fill their car with gas, or smoke. Five to seven percent of the individuals we have sampled are children.

We tried to get the medical labs interested in doing analysis of the blood for the PAH, since it is a major component of the crude oil. To this day we have been unable to find a lab willing to provide the analysis, although PAHs are known and suspected cancer causing agents, and these are the components that last a long time in the environment. To demonstrate, I examine a lot of creosote facilities that primarily let off PAHs in the community. These facilities impregnate wood with creosote to preserve it. Some of these facilities have been shut down for thirty years, and the people in the communities around them still have high levels of PAHs in their blood that match the fingerprint of the PAHs from the facilities. The PAHs that form the dispersant and crude oil will be present for decades.

Because we are testing for VOCs, the government agencies are going to be constantly pushing back on us and saying bad things about our data based on the aforementioned reasons. Yet they are not coming in and taking over. Traditionally I help get testing off the ground in affected communities, and then the CDC and state's department of health services get involved to help implement the response on a larger scale. That was not the case in the aftermath of the BP oil spill. However, the National Institute for Environmental Health and Sciences (NIEHS) has \$20 million – \$10 million from the federal government and \$10 million from BP - for its Gulf Study.

## 6. NIEHS GULF STUDY

From the beginning of the planning, mid-summer of 2010, I sat in on the conference calls that were developing the scope of the NIEHS Gulf Study to examine the health of people who helped clean up the oil spill. Because there was not a tracking system under Hurricanes Katrina and Rita, I was happy that they were going to create a health tracking system early on. But they said they were going to limit it to workers and volunteers. I replied, "There is this whole population on the coast that you just excluded – the residents." Then they came up with only 55,000 workers, and I replied, "But there's a whole population of workers and coastal communities that aren't included." They responded, "Well yes Wilma, but you know, we don't have the money."

As it developed, we talked about the different aspects of the Gulf Study. They were going to contact people and monitor their health symptoms. The first year they were going to track 55,000 people. The next year they were going to cut it down to 50,000. In actuality, during a conference call Dr. Dale Sandler, Chief of Epidemiology and Principal Investigator for the Gulf Study,

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stated that for the duration of the study they would only track 16,200 individuals. I responded to their proposal, "You were going to ask people what health symptoms they had but you weren't then going to say, 'we'll get you to the doctor and get you medical care.'" I said, "It's completely inappropriate to ask them what their health symptoms are, but then to not get them medical care." They replied, "Well, Wilma, you know we don't have the money."

Finally, about three months ago they changed the study terms to say, "And we'll refer you for medical care." I know that all of the agencies are not going to have the resources to make referrals. But then, four universities received these community involvement grants, one of which was University of Texas Medical Branch in Galveston (UTMB).<sup>9</sup> They have developed the analytical method, similar to the Metamatrix blood test, used to look for the PAHs in the blood and the urine of the people that they're going to be covering in their study; the people who live in the coastal areas and consume seafood from the coastal areas. We are going to be assisting UTMB and sampling the seafood to be analyzed for the PAHs. We're going to be able to test for the PAHs in what they eat, and in their body and in their blood and their urine. These are going to be the PAHs that gulf coastal residents are bioaccumulating.

## 7. FDA ON SEAFOOD SAFETY

We have done a large amount of testing of the seafood.<sup>10</sup> The minute we get our results, within three to four hours that information is available to the community through the LEAN website and provided to the federal and state agencies. The PAHs that we are finding in the seafood actually match the fingerprint of the BP crude, so it's clearly from the BP spill. Through EPA conference calls that I participated in on an ongoing basis, I knew that early in the spill the National Oceanic Atmospheric Administration (NOAA) took a few samples for Corexit. Shortly thereafter to my knowledge they dropped it. After the well was plugged they stated that the final Corexit application was July 19, and treated the testing of Corexit as a nonissue. They didn't establish criteria for the dispersants, only for PAHs in specific seafood (detailed below). Our data matches the data that the federal agencies have collected; however, when the FDA did its concentration calculation, it was based on flawed assumptions.<sup>11</sup> When we do those types of calculations, the concentrations in the seafood exceed the acceptable levels for safe consumption. We have gone around and around with the FDA on that issue.

The FDA developed criteria for specific PAHs in shrimp, crab and oysters. Their findings were based a 175 pound person. They ignored the vulnerable populations – the young, the elderly, the

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<sup>9</sup> *Announcing GC-HARMS: UTMB's Study of PAH's in Seafood and People*, LEAN, Dec. 1, 2011, <http://leanweb.org/our-work/water/bp-oil-spill/seafood-safety/lean-partnering-with-utmb-for-gc-harms-study-of-pah-s-in-people-and-seafood>.

<sup>10</sup> *BP Oil Spill Seafood Sampling Projects Results Overview*, LEAN, Jan. 3, 2011, <http://leanweb.org/our-work/water/bp-oil-spill/seafood-safety/bp-oil-spill-seafood-sampling-project-results-overview>.

<sup>11</sup> *Deepwater Horizon Oil Spill Reopening Samples: PAH and DOSS Results Summary From FDA Testing Labs*, available at <http://www.fda.gov/downloads/Food/FoodSafety/Product-SpecificInformation/Seafood/UCM231696.pdf>.

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people on chemotherapy and HIV patients. They also based their conclusions on an average consumption rate of the United States, of four shrimp for one meal a week. No one along the coast only eats four shrimp. And they don't eat one meal a week of it; they eat it on a very frequent basis.

The other aspect is that the FDA and local and state wildlife and fisheries use that data to establish when they can reopen a fishing ground, and they work with the state agency to determine what kind of buffer zone from the marsh; how much of the water should be closed versus the rest of the lake estuaries open. In fall 2010 I was standing in this very oily marsh, and there was a shrimp boat right offshore trawling for shrimp. The shrimper didn't know what the buffer zone was; he was right up against shore. I knew that if I went off the bank 10 or 20 feet and took a sediment sample, it was visibly oil, and yet that is the area he was trawling in. To this day, if you talk to the fishermen they will talk to you about bringing up trawls and nets and cages full of oil. But they don't want to speak about it publicly, because the rest of the community is going to be screaming at them and saying that "you are destroying our livelihood" by raising concerns about the safety of Gulf seafood.

On top of the FDA's flawed safety assumptions, BP is giving huge monies to the seafood industry in each state to promote seafood. The federal government is a cheerleader for this false advertising. NOAA Administrator Dr. Jane Lubchenco stood at a press conference on September 15, 2010 in Kenner with all of the seafood bigwigs standing up behind her, and she said, over and over and over again, "The seafood is not contaminated, the seafood is not contaminated, the seafood is not contaminated."<sup>12</sup> That's what the industry and BP wanted the message to be.

After that event, I sent Dr. Lubchenco a message that stated "The seafood is contaminated with PAHs, and according to the FDA's calculations it is below the acceptable level you have established; your own data shows that 40% to 60% of the oysters are contaminated and the shrimp are contaminated." Shortly thereafter NOAA changed its message to "The seafood is contaminated but it is below the levels we have established as unsafe."<sup>13</sup> However, Dr. Lubchenco's first message was the message that BP and the seafood industry wanted to hear, and that was the message delivered in a public forum and that continued to be repeated publicly. She knew better.

It is a matter of finding the reality that is out there and the lack of transparency in the reality. We are trying to get the message out: "This is the real situation, now you make your own decision."

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<sup>12</sup> Transcript: Press Briefing and Teleconference by National Incident Commander Admiral Thad Allen and NOAA Administrator Dr. Jane Lubchenco. RestoreTheGulf.gov, Sept. 15, 2010, available at <http://www.restorethegulf.gov/release/2010/09/15/transcript-press-briefing-and-teleconference-national-incident-commander-admiral->

<sup>13</sup> Press Release, NOAA, NOAA and FDA Announce Chemical Test for Dispersant in Gulf Seafood; All Samples Test Within Safety Threshold (Oct. 29, 2010), available at [http://www.noaaneews.noaa.gov/stories2010/20101029\\_seafood.html](http://www.noaaneews.noaa.gov/stories2010/20101029_seafood.html).

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## 8. EPA APPROVES COREXIT

When EPA administrator Lisa Jackson directed BP to come up with a less toxic alternative to Corexit, and the deadline hit on May 21, 2010, we asked for the response. BP said it needed to be confidential, so it took a number of more days for all the lawyers to release it. I got it on a Saturday afternoon and my colleagues wanted to know, "What does it say and mean?" It essentially said "Yes there were less toxic alternatives, but the supply was not available. Therefore, we, BP, will continue to use Corexit, because the supply is available for the quantity we need to apply."<sup>14</sup>

On May 26, 2010, Administrator Jackson responded that BP must reduce the amount of Corexit used by 75%.<sup>15</sup> Subsurface application of the dispersant continued and BP did not have to justify its use under the terms of the directive. Surface application was supposed to be eliminated, but BP could justify its use due to weather or if it identified an oil slick. On a daily basis BP received exemptions to apply the dispersant by plane. EPA would go in the spotter plane planes in the morning and look at all the slicks that BP was proposing to spray. By noon, they would tell BP which ones they were allowed to spray and then the spraying would occur. To me, the justification by EPA was that while they did not have a less toxic dispersant, BP was spraying less. Marylee and I worked extensively with the EPA throughout this process and would share community complaints about the use of dispersant, such as concerns of being sprayed, and EPA representatives informed us that they would try to verify the complaints.

I have worked with the coastal areas for my whole professional career, so the communities that reported to me during the spill are the same ones that I worked with before Hurricanes Katrina and Rita. I'm a known entity there. I know who is reliable within the community, and who is not. During the time that BP was spraying from the blowout through mid August 2010, I kept getting a lot of calls from workers offshore reporting that they were being sprayed; not the workers who were the BP contractors around the wellhead on boats and ships, but workers from other rigs that did not have protective gear. They reported respiratory problems and nausea. On an ongoing basis I would speak with EPA and share, "I've received information that these workers on the offshore rigs are being sprayed." They would look into it and come back and say, "No they are not Wilma. We are not spraying where there are workers, and we are not spraying where there are dolphins." Then I would get more complaints and I would tell the EPA again, the workers offshore are being sprayed. And they would respond, "No, they're not."

From early in the cleanup, residents inshore contacted me to report spraying as well. The last call I received was in July 2011. From the beginning, everybody ran to Venice, Louisiana, because

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<sup>14</sup> Letter from Douglas J. Suttles, Chief Operating Officer, British Petroleum, to Mary Landry, Rear Admiral, Commander, Eight Coast Guard District, Samuel Coleman, P.E., Superfund Division, U.S. EPA Region 6, (May 20, 2010), available at <http://www.epa.gov/bpspill/dispersants/5-21bp-response.pdf>.

<sup>15</sup> Directive from EPA and the Coast Guard on Reducing the Use of Dispersants to BP (May 26, 2010), available at <http://www.epa.gov/bpspill/dispersants/directive-addendum3.pdf>.

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that was where the oil was going to come in. Residents and cleanup workers would repeatedly call me and report, "We are being sprayed on land in Venice." Venice is way inshore. I would tell them "It's mosquito control; I've been sprayed in Venice by the trucks and planes for mosquito control." In the first month it was primarily mosquito control. By law, dispersants cannot be applied closer than three miles to shore. But after the first month into the spill, BP started spraying inshore. A lot of people would send me photographs of Corexit in totes that were land based. EPA stated that Corexit was not being applied inshore, but went on to explain that through state exemptions it could be sprayed in shore.

From May 2010 through fall 2011, community members reported to me that they would go out and see a slick, that night hear the planes, and then the next day the slick was gone from the inshore and estuary areas. People inshore would continue to report how much they were being sprayed. Elderly would be sitting on their porches in their summer homes and get sprayed and wind up in the hospital for respiratory problems. I would call in the EPA and the feds to report that EPA was spraying people on shore, including the coastal estuary areas and beach area. They would respond "We have a federal criminal investigation and we can't talk to you about it, this is enforcement sensitive." I have had the kind of relationship with EPA where I can inform them about an environmental or health problem but the EPA cannot directly respond, therefore I understand if something is enforcement sensitive. I get the message to them and hope that they do the right thing.

EPA told me that there is a Louisiana state exemption that allows BP to spray inshore without keeping records of it, which is a historical problem that we have with pesticide use. In Louisiana we could never get a requirement for the state to record what pesticides are being sprayed, how much and when. In turn, farmers can go out and spray whatever they want, whenever they want, and I can't go back and find the file that says, "On that field across the street these chemicals were applied in these amounts on this date." That exemption applies inshore with Corexit use; because it is state waters, the company applying the dispersant does not have to report that they have sprayed dispersants. It doesn't make sense, but it is reality. Due to this loophole, you cannot find out who sprayed what, when, where, and yet I have all these people reporting that they have been sprayed.

We are a coastal parish and we have marsh and tons of mosquitoes, so mosquito control sprays by truck. When it gets really bad a federal plane comes in to spray. We worked with the Parish to the point where they now notify all of the sensitive populations before they spray, so that they can choose to leave the area. Further, they put it in the newspaper, so the broader population can know when they are going to spray from the planes. It's not dispersant but it's very toxic. Until this is implemented at the federal level, it is only a partial solution. If I'm not in every parish, I can't get the warning implemented everywhere. The problem is worse with dispersant use, because there is no requirement that BP has to record where it sprayed, and there was frequent denial by BP that they were spraying inshore.

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## 9. CONCLUSION

We knew that the BP spill was Louisiana Sweet Crude. We knew its major components, and that its toxicity level increased when mixed with Corexit. BP was spraying the more toxic Corexit 9527 and shortly into the spill they switched to a slightly less toxic 9500, which was still more toxic than alternative EPA approved dispersants. EPA and BP knew of the health impacts associated with it, even though BP wasn't forthcoming with all of the elements. The issue was responding to an oil spill of this magnitude, with unprecedented quantities of Corexit, including novel subsurface application. Gulf coastal communities, and individuals who consume gulf seafood or recreate in the gulf, are the guinea pigs left to deal with the consequences and will be feeling the full effect in years to come.

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I have read the foregoing 16 page statement, and declare that it is true, accurate and complete to the best of my knowledge and belief.

Executed on June 12, 2012.

Wilma A. Selee

Subscribed and sworn to before me  
this 18<sup>th</sup> day of JUNE, 2012

Clint E. Hubma #11630

Notary Public

My Commission expires on: 2-13