

Jungle Fumble: A brief history of and inside look at the Ecuador Lawsuit against Texaco/Chevron

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INTRODUCTION:

The complete story of the Ecuadorian adventure has been written by Paul Barrett, in Law of the Jungle which is due out in October, 2014.

This story, like all good tales, starts with a “Once upon a Time.” That time was the mid-1960’s in Northeastern Ecuador, on the Agurico River, in a concession area granted by the Government of Ecuador (GOE). Texaco went to the concession area and found oil. As a result, Texaco started a drilling program which would lead to the formation of CEPE or Corporacion Estatal Petrolera Ecuatoriana or PetroEcuador which was formed in 1972.ⁱ

The impact of oil development on the Amazon region was tremendous. Texaco and it’s PE partner drilled over 300 wells. In order to support the development of the wells, roads were built, pipelines were built, and equipment was moved in. The consortium also built 3 refineries and a number of separation stations. While this is not a primer on oil development, there are a few things to note, because they relate to the damage of that portion of Ecuador by the development of petroleum operations.

In order to set the stage, a bit of background is necessary. Crude oil exists in porous rock and much of it is floating in layers or formations which are trapped between overlaying impervious materialsⁱⁱ as shown in the picture in the endnote. The extraction of crude is difficult, comparable

to trying to remove oil from an oil soaked sponge floating on a shallow dish of water. When you remove the oil, water comes with it. The water, called produced water or formation water is salty to varying degrees, and it contains dissolved oils.

Oil is not one chemical but a soup of everything from dissolved gas, and volatile chemicals to asphaltines and petroleum tars and dissolved metals including whatever was in the surrounding rock. The quantity of produced water exceeds the volume of crude pumped by factors of between 3 and 10.

The crude and formation water mix is put into a pipeline and sent to a separation station where gravity is used to separate the oil from the water. The formation water contains many of the soluble and suspended materials in the formation crude. Some of the chemicals are considered harmful or toxic.ⁱⁱⁱ

In the exploration for oil and the development of an oil well, the well drillers use a variety of fluids, some to prevent biological growth in the formation, some to remove the drill cuttings, and some to keep the hole open from the high pressures deep in the earth. One of the most common chemicals used is Barium Sulfate, because it is very slightly soluble and dense, helping to keep the hole open. Oil well technology has changed over the past 20 years; the older wells were drilled using Hexavalent Chromium, a toxic heavy metal, as a corrosion inhibitor and a biocide. Newer technology uses more environmental friendly biocides and corrosion inhibitors.

Every well is accompanied by at least one drill pit. The newer pits have a plastic liner to protect the groundwater, but depending upon the country and the requirements, unlined pits are still found. These pits receive everything that comes out of the well, including drilling fluids, well

cleaning compounds, some petroleum, and lots of other stuff.^{iv} Even in today's drilling operations, drill pits are used, and the oil producing states have a program to remediate drill pits from old and abandoned oil wells. When the first environmental laws were passed in the US in 1973, the concern was discharge to the surface waters and not to the groundwater. There were no hazardous waste rules until the very late 1970's, and drilling wastes were not regulated as a class of Hazardous Wastes.^{vi} There were no environmental laws in Ecuador until many years later.

At a separation station^{vii}, the oil from the pipeline is separated from the oil by gravity. The left-overproduced water is often piped to reinjection wells which helps maintain formation pressure, and effectively disposes of the water. Reinjection is expensive; the operations in Ecuador required a long pipeline over the mountains to get to the Pacific Ocean; and, it was easy and cheap to send dispose of the produced water into the local rivers. This reportedly saved Texaco between \$1 and \$3 per 42 gallon barrel of oil produced. At the separation stations in Ecuador, the separation station looked slightly different. ^{viii} And, these practices continued unabated until recently when PetroEcuador decided to install reinjection wells.

In 1990 Texaco started the pull-out of Ecuador, and completed it in 1992. At that time they owned a 3/8 (37.5%) share of the profits with the other principal partner being PetroEcuador (PE). As part of the separation agreement Texaco agreed to remediate its share of the drill pits and ponds. They did so over the next two to three years, completing the pullout by 1995. A major consulting firm (Woodward-Clyde and their subcontractors) were employed to supervise the cleanup 122 pits and an asphalt station, which was Texaco's share of the concession.

The cost of the cleanup was approximately \$50 Million, and it was decided, with the concurrence of PE and the GOE that the cleanup was to be performed using a RCRA standard

for Hazardous Wastes. This standard is based upon the Toxic Characteristic Leaching Procedure Test (TCLP) which is designed to mimic the leaching characteristics of hazardous waste and municipal landfills^{ix}), and it was completed by Woodward and Clyde, A consulting firm, in 1989, but the final report wasn't issued until 2000.

Beginnings of the Lawsuits

In September of 1998, the Republic of Ecuador and the PetroEcuador signed an *acta* (agreement) which released Texaco from all environmental claims.^x In 1993, Cristobal Bonifaz, an Ecuadorian Native but US Citizen, and a lawyer; Joseph Kohn, Managing Partner of Kohn Swift, a Philadelphia Class Action Law firm; and Steven Donziger, a former newsman for UPI who covered the Sandinistas in 1984-1987, and Harvard Law trained lawyer, and Friend of Obama; got together and formed a class action lawsuit on behalf of the natives of the Oriente region of Ecuador. This suit was, *Aguinda vs. Texaco*, and was first brought into Federal Court the Southern District of New York (where Texaco had its home offices)^{xi}. In private conversations, Donziger stated that he believed that the only reason that Texaco performed their cleanup was because of the possible threats from the lawsuit^{xii}.

In the lawsuit, the LAP (Lagro Agrio Plaintiffs) alleged that they been damaged by the release of oil related contaminants into the environment from TexPet's operations in Ecuador, and sought (at that time) unspecified damages against Texaco, the ROE, and PE. With some legal maneuvering and implausible but actual events, Texaco sought to have the trial moved to Ecuador because of its independent judiciary, while the LAP opposed this move. The trial was moved in 2003 to the Circuit Court in Nueva Loga (or Lago Agrio) Ecuador.

The Lago Agrio Plaintiffs were concerned by Texaco's argument that the ROE and PE were an indispensable party in view of the complaint's prayer for an equitable decree requiring environmental remediation in Ecuadorian territory. They obtained the ROE's agreement to seek to intervene in the case and to advise this Court that it consented to the "execution in its territory of any environmental cleanup measures that the [Southern District] Court may order [Texaco] to perform." But there was a *quid pro quo*. The LAP plaintiffs gave the ROE and PetroEcuador a judgment reduction agreement to protect them against any award of contribution that Texaco might pursue against them^{xiii}. This action essentially absolved PE from any involvement, liability, or blame for the situation in Ecuador despite the fact that they had been operating the sites with a major share control, and then exclusive control since 1995.

In November 2001, Anna-Karin Hurtig and Miguel San Sebastián published an article entitled, Geographical differences in cancer incidence in the Amazon basin of Ecuador in relation to residence near oil fields in the International Journal of Epidemiology (Int. J. Epidemiol. (2002) 31 (5): 1021-1027. doi: 10.1093/ije/31.5.1021). This publication plus the lawsuit and the manner in which it was organized, and, in part, due to the lack of attention by the local resident's complaints against PetroEcuador for their sloppy practices, poured gasoline on a smoldering fire of human emotion and resentment against big oil! Donziger, in concert with the *Frente de Amizonia* helped to make the situation incendiary!

Spring 2003

In the spring of 2003 Global Environmental Operations, Inc., (my shop) was contacted by a technical advisory service for attorneys, and went to meet Steve Donziger in New York. With a relatively short time frame, we were engaged to travel to Ecuador and produce an estimated

cost for remediation of the Oriente Region. At the time, nothing was said about the impending trial until after I got down there.

I spent about a week visiting various pits and ponds, and sites in need of remediation throughout the area. This was in 2003, and some of the sites we were told to look at were remediated but many were not. At the time Donziger told me to assume that all the contamination was the fault of Texaco because they were the people who provided the technology. The subject of PetroEcuador's operations of the sites was never mentioned.

The existing pits and former and current well sites are a mess! The photos in the endnote address some of the visual pollution and hint at some of the problems with the contamination of the region by oil^{xiv}. But you will note that in a number of those photos there are flowing streams, indicating a current and operating source- PetroEcuador!

Similarly, some of the people living by the contaminated sites are drinking and washing in streams flowing down from these old pits, and some are drinking and washing in rivers where the source is the separation stations. To the uninitiated, the entire area is a series of smelly black holes covered in viscous black oils. If the jungle has encroached on the pond, the foliage can build up a layer of leaves, leaving an organic mat covering the surface of the pond, and more than once some of the pre-investigation crew who were locating these sites would walk out on the surface of this mat, drill a hole and then have the entire mat start to sink beneath them.

At the time of our initial investigation (2003) I was told that the contamination was extensive, and that some of the swamps and rivers were so contaminated that they would need cleaning. Repeating, I was also told to assume that all the contamination was from Texaco!

As an aside, how does one clean up a swamp (wetland) without destroying it? I later saw physical evidence of spills from pipelines into wetland areas which provided a coating of heavy oil on the bottom of the wetland. When one walked in the area, the oil sheen would flow around your boots from where you had disturbed the muds and oils^{xv}.

Other areas we were told about contained Class V rapids. These areas also needed remediation. Of course the groundwater contamination was believed to be extensive, and it was described to us in just that way. "There are incidences of cancer all throughout the area!" And, many believed that they had been influenced by petroleum and either were pre-cancerous or just plain sick from exposure to petroleum.

Perhaps one of the strongest critics of the oil exploration program was Randy Borman, whose life was profiled in a book, "Amazon Stranger: A Rainforest Chief Battles Big Oil,"^{xvi} details his life as the child of a missionary in the Oriente Region. He recounts several incidences of fish kills from unknown chemicals being deliberately put into the rivers, to save the oil rig workers the trouble of fishing for their dinner. Whether it is true or not, I cannot say, but Randy has become a strong advocate for the people of the Oriente and a hard working advocate for justice and cleanup.

We also want to take you back to a meeting with Miguel San Sebastian, whose cancer study, while somewhat inconclusive, was important to the LAP case because it provided evidence of the incidence of health problems and linked it to the presence of petroleum.

In some of the LAP documents, it is alleged that the various tribes indigenous to the area at one time numbered in the tens of thousands to a high of around 150,000, but today number less than five hundred- indicating a society on the verge of collapse. The area is relatively isolated, and medical services are hard to find. Civilization has had an impact, as well as a lack

of sanitation, disease, and many other things. The point is that it may not have been the oil drilling alone which caused the civilization to decline. In earlier years, the government of Ecuador considered the area, “The Empty Lands,” because the natives did not speak Spanish^{xvixviii}.

There are a number of colorful tribes, the Cofan, Secoya, Siona, Huaorani, and the Kichewa as principal residents of the area. The tribal representatives can be counted on to show up at any important publicity event in full native gear, and colorful headdress. Wonderful photo opportunities!^{xix}

As part of the trial, I was asked to estimate the cost of remediation of the entire area. After an iteration, the final number arrived at was \$6.114 Billion- but there is a caveat. The cost of pit cleanup was \$ 455 Million for excavation and incineration of everything in the pits. The major elements of cost are for pumping and treating groundwater, and cleanup and restoration of rivers and swamps. In hindsight, some of the swamps could use a cleanup, but the rivers appear to be fine, at least with respect to petroleum contamination.

I have reproduced a part of the cost estimate here. Note that the largest areas of cost are related to the cleanup of groundwater, and the rivers and the muds in the rivers which were expected to be contaminated with petroleum.

Category: Pits

The remediation of the pits will cost *\$455 Million.*

Ponds and Separation Stations

The remediation of the Ponds and Separation Stations will cost *\$183 Million.*

Groundwater Cleanup:

The groundwater cleanup from the various stations and pits will cost *\$190 Million*

River Muds:

If we confine the area to about 200 km of rivers, the cost will be *\$1320 Million*

Wetlands

The remediation of the wetlands and their restoration will cost *\$1800 Million*

Other Water Treatment

<i>Treatment of other types of contaminated water will cost</i>	<i>\$2026 Million</i>
Additional Infrastructure	
<i>Upgrading infrastructure and other support including laboratory</i>	<i>\$140 Million</i>
Total Estimated Cost	\$6114 Million

Is the cost estimate high? Looking back at what is known now, Absolutely! Was it very very rough? Again, Absolutely! Given the conditions under which it was made, I described it as “A SWAG, or Scientific Wild Ass Guess!” The estimate was based on a total absence of any chemical or soils data, or much of anything else. Needless to say, it was extremely rough, and I was uncomfortable with the idea of it being taken as a high precision estimate, and I told Donziger that repeatedly!

The Trial:

Ecuador uses the Napoleonic legal system, found only in Louisiana in the US, and it is archaic at best. The trial comes first, and then the judge and the parties go to the field and then collect data and analyses to prove or refute the allegations made at the trial. This procedure is very formal, and the judge actually goes to the field sites and the opposing attorneys argue the case with regard to collecting and analyzing the data. The Court appoints “Peritos”, or court experts who are sworn to provide accurate data to the court. When the evidence is all collected, and the reports are in, the judge then collects everything and sifts through the facts to arrive at a decision. The judge is also allowed to have an expert for the court to handle the scientific issues, and assist in evaluating the evidence and assessing the damages, if any. In this case, the damages would later be found to vary between \$27 Billion and ultimately \$9.5 Billion which is the current value of the claims of Ecuador.

I was scheduled to testify as a witness, but did not because I do not speak Spanish. The other reason given was that the Opposing Council had done their research and knew who I was,

for whatever good that did them. The Court proceedings are also unusual because the testimony is taken by the Judge, and the transcripts are written as if they are one long paragraph. If the witnesses are asked questions, the opposing counsel is allowed to ask 3 questions for every one the plaintiffs ask, and the witnesses must testify without benefit of notes. By Ecuadorian law, a civil trial lasts 7 days. The testimony is taken, and then the parties gather evidence in support of their testimony. That is then submitted to the Judge and he rules on the evidence. What came out of the trial was an agreement to inspect 122 sites, some of which had been cleaned up, and others which had not. The Judicial inspections were scheduled for 2004.

By the summer of 2004, I had hired a highly talented Certified Industrial Hygienist, and good friend, Dr. Charles (Chuck) Calmbacher, who also spoke Spanis. Together, we had several months of preparation for the field inspections, and that included hiring the teams, training and managing the teams, providing safety equipment and training personnel on its use, setting up the analytical protocols, locating one or more analytical laboratories, and lots of minutiae involved in starting up a remote operation.

While there was general agreement between the parties on the issue of analytical protocols, I became aware of the cost of the analytical program, and it was expensive. In order to attempt to reduce the analytical costs, and still provide a good basis for reliable analyses, I first considered surrogate methods, using an enzyme system and color development to test for petroleum, with occasional confirmation by a chemical laboratory. While that was good idea, it didn't survive the first field investigation because the attorneys thought that we needed to match analyses with analyses.

The schedule for the Judicial Inspections was set for early fall 2004, and was ambitious. The Inspections were scheduled for two inspections per week until all 122 sites had been

inspected. The individual inspections were then to be followed by a Global Inspection of everything in the area and development of a cost estimate.

We, Chuck, the team of our employees, and I, all knew where the wells were, but after twenty plus years some of the pits were badly overgrown or covered over, and we had to find the pits. Initially we did not have access to aerial photography and relied on a GPS, a We organized with two scout teams which would attempt to locate the areas of the highest petroleum contamination. The tools included a portable but crude chemical laboratory (enzyme identification for petroleum), a mapping grade GPS, a surveyor's theodolite and level rod, boots, Tyvek protective clothing, respirators, a very crude drilling platform, manpower and sweat^{xx}.

No battle plan, including technical ones, survive the first contact with the adversary. In this case, the first couple of inspections went fairly well, and results were needed by the Legal Team (Donziger, plus other local attorneys) to make a splash that our little lab could not provide. We sent the first set of samples back to the US for analysis because we could not find a laboratory in Ecuador with the capabilities of running the TCLP and with a high resolution GC/MS. That was a Big Mistake!

In a contest such as this there are always those who want to give an extra effort for the team! The first set of samples from the first inspection was packed in ice and taken to the local airport to be sent to Quito for FedEx shipment to a US lab. Just before the sample coolers were to be loaded on the plane, a curious thing happened. Out of nowhere a new "airline employee" showed up and demanded to inspect the contents of our sample containers, as he was certain that there were flammable contents, and that it was an Forbidden Cargo. Curiously enough, the sample containers from Chevron were next to ours in similar containers, but the demand was to see our containers only! As a result, our containers were blocked from shipment on the morning

flight. We reshipped the containers without incident on the evening flight, and never had a problem after that. Mystery employee? No one had seen him before or since.

US Customs inspected the containers, and the individual sampling jars to confirm that they contained soil, thereby violating the chain of custody protocols, and delaying the shipments by about 3 days; the samples came in over temperature and over holding times. We learned very quickly that we would have to develop a local laboratory for analysis.

Earlier I mentioned the expense. The investigation was expensive. The field analyses and sampling program would cost, on average, about \$2 million per year, and that is only for the technical side of the house, and does not cover legal and other costs. If you decide to take on a suit of this nature, make sure that you have your funding sources lined up, and your political lines straight. During the course of the investigation, I repeatedly attempted to communicate the projected costs of the investigation to the principal funding group, but was repeatedly blocked by the lead lawyer.

Results

Below are the results of the testing on several of the sites, as compared to what Texaco reported when they cleaned up. We have cherry-picked the data because it's the only data available at this time. It's data in my possession while I was working for the LAP. The remainder of the data are under the Court's seal pending resolution of some lawsuits.

I attempted to obtain the reporting data from Chevron that they reported to the Court in Ecuador, and the data that the LAP reported to the Court after we left the case in early 1995. No luck on either side. The interesting things are the conclusions we can draw from the limited data

Chuck and I observed, and the findings in the RICO Act lawsuit of Chevron against Steven Donziger and the LAP.

Here is a summary of the data available to me at this point. The first table is from the report on cleanup prepared by Woodward-Clyde for Texaco. It reflects their actions between 1995 and 2000 when the cleanup was finished, and the report was finalized. It should be noted that the Woodward-Clyde Remediation report represents about 4" of paper, many drawings, and photographs.

I've reviewed the data available which is not under seal of the court, and the analytical data I can trust. Note Texaco did not remediate Sacha 13 and 14 (SA 13, SA 14).

As will be mentioned later, after we stopped being involved in the case, we found out that Donziger's crew was falsifying the report data, and anything reported by the LAP group is unreliable and fatally tainted. This effort at deception also included re-writing of some of our reports without our knowledge.

A second comment is that the data source from Texaco is from the Woodward-Clyde report, and is confined to the sites that they remediated. By the agreement with the ROE, Texaco used the Toxic Characteristic Leaching Procedure test to determine that there were no Hazardous Wastes left behind on the remediated sites. It is also important to know that the TCLP test is not particularly effective on petroleum, and as was discussed the TCLP test also has a 20:1 waste dilution procedure for testing solids.

Well Number	Number of Pits	Sizes of Pits Sq.M	Media Present	Cleanup method employed
SA -6	3	95, 375, 168	DOWS	SER
SA-21	2	111, 125	#1 Dry; #2 DOWS	#1 ISS #2 SER
SA-57	3 plus a spill	712, 943, 1065	#1 DOWS; #2 DOWS; #3 DRY; Spill:DOWS	#1 SER; #2 SER; #3 SER; Spill: ISS
SA 13	Unremediated by Texaco but closed			
SA-14	Unremediated by Texaco but closed			

Codes: DOWS = Debris, Oil, Water, Soil
ISS = In Situ Stabilization
SER = Surfactant Enhanced Recovery

WATER DATA in mg/L					SOILS DATA						
Station	Decree 2982 List no 4 Limits	SA-6.1	SA-57.1**	SA 57.2	Station	SA-6.1 Pre	SA 6.1 Post	SA 6.3 Pre	SA-6.3 Post	SA 57 aggregate	SA-57 Post
Parameter					Parameter						
pH	5-9	6.3	7.2	6.5	TPH mg/kg	11000	<5	<200	NA	1770	<5
Temp	---	26	28	25		7700	<5	<100	NA		
Floating solids	None	none	Present	---		7000	<5				
FOG	15	<5	190	<5	Note: Under terms of agreement the Post Remediation Data were run on the extract after running a TCLP leaching as per SW-846						
TDS	2500	190	1200	91							
Cl	2500	NR	56	NR							
SO4	1200	NR	1	NR							
TSS	40	3	1500	33							

Settlable Solids	40	NR	0.2	NR
COD	80	61	650*	23
Cd	0.1	NR	0.02	NR
Zn	0.5	NR	0.4	NR
Cu	3	NR	0.02	NR
Cr	0.5	NR	<0.01	NR
Phenols	0.15	NR	0.46	NR
F	5	NR	0.24	NR
Ni	2	NR	0.2	NR
Pb	0.5	NR	2.2	NR
DO	---	6.7	29	2.1
Conducitvity in uS	---	470	2300	190
** Initial Value				
* Water Discharged with consent of GOE				

Here are the results of the trusted laboratory analyses from the inspections in Ecuador.

Ecuador Site Inspection Data

Site >>			Range of Data on sites US Lab			Ecuadorian Laboratory			
Parameter	Units	Detection Limits	SA-6	SA -21	SA-21 Water	SSU-SO	SA-57	SA-13	SA-14
Barium	mg/kg	1	320-710	21-610	0.1	1.0-120	40-62	<1-64	<0.1-576
Cadmium	mg/kg	1	1.4-2.5	BDL-35	0.1	<0.01-16	<1-3.9	<1-2.4	<0.01-11.3
Copper	mg/kg	2	51-64	18-73	0.1	0.5-14	1.78-2.34	21.2-24.2	<0.5-22.7
Nickel	mg/kg	2	21-22	15-100	0.1	<0.1-20	11.9-15.8	18.1-19.4	0.1-15
Zinc	mg/kg	2	41-64	28-78	0.1	0.3-38.6	37.6-52.7	69.5-75	0.3-219.2
Chromium Total	mg/kg					<0.5-2.4	0.98-1.58	3.15-5.44	<0.1-10
Diesel Range Organics Total	mg/kg	35-80-350	440-860	7-2700	GRO 1.0 DRO 0.1	273-3510	<50-3251	209-9144	NR
Petroleum Hydrocarbons						<0.2-4432	<50-780	879-15311	NR
Polynuclear Aromatic Hydrocarbons	ug/kg	330	all BDL		BDL	All <200	<500	<100	NR
Phenanthrene	ug/kg	330-660	BDL	520-370	BDL	BDL	BDL	BDL	NR

All site data have multiple analyses for parameters depending upon depth of samples. Ranges show only maximum and minimum

Note: Detection limits are lower for liquid samples

Generally, the lower values are nearer the surface, and highest at 0.5-1.5 M below the surface

The reason for cherry picking the data is that I left the lawsuit in 2005 over issues of non-payment of services. In the fall of 2004, Chuck Calmbacher, had been appointed an Officer of the Ecuadorian Court for the lawsuit, and was in charge of writing reports on the findings of our sampling and analysis program. But, Chuck was no longer in Ecuador because he picked up Dengue Fever and returned home for treatment. He still had to submit the reports to the Court, as official and sworn documents.

Chuck and I conferred and agreed upon the contents and the analysis and the likelihood of harm to the local population from the contamination we found. We didn't find any harmful levels of contaminants, and most of what we were finding was in the non-volatile oil and asphalt ranges. Chuck wrote the reports in Spanish, sent them electronically down to Quito to be edited, and the reports were re-transmitted electronically for his review and signature. Because he was in Georgia, he had to initial a number of blank pages and have them couriered down to Ecuador so that the report could be submitted.

A funny thing happened on the way to the Courthouse in Lago Agrio. Donziger and his crew re-wrote the reports, falsifying data, and reaching conclusions and preparing cost estimates which neither Chuck nor I would have stood for if we had been aware of the practice. In one case, they cut his seal and signature off a signed report and affixed it to “their” report with different conclusions^{xxi}.

2005 and onward

Both Calmbacher and I told Donziger that the contamination was indicative of PetroEcuador and I reiterated this at a meeting with the four principal attorneys in New York, telling them that BTEX findings are *“much more indicative of contamination from PetroEcuador rather than Texaco because these compounds are volatile and degrade quickly*

in hot, wet, warm environment such as in the jungle.” The lawyers then instructed the team to stop testing for BTEX and instead report only analyses of Total Petroleum Hydrocarbons, or TPH. Because there are many compounds which can cause positive readings for TPH, including natural ones, this is much less indicative of petroleum contamination, and much less conclusive.^{xxii}^{xxiii}, And to be clear, these analyses were to conducted and reported because they produced large numbers for publicity purposes.

In late 2004 and early 2005 some of the analyses were in, and the investigation process was running fairly smoothly. Donziger wanted to set up the operations for the production of the reports and findings in Quito. At the same time, I expressed the idea that they should stop using him as a paymaster for the work in Ecuador because the reimbursements were becoming much slower, and Global Environmental Operations, Inc., was rapidly accumulating uncomfortable levels of unreimbursed debt on behalf of the LAP.

I was becoming increasing uncomfortable with the 2003 cost estimate because as I became familiar with the case and the levels of non-contamination, my anxiety spiked. Donziger was using that very rough cost estimate as a bludgeon to attempt to get Chevron to settle, and publicized it widely and even held meetings with Congressional Committees and the Securities and Exchange Commission to attempt to get their involvement and put pressure on Chevron to settle. At one time, there was even an attempt to involve the CDC, and get them to conduct a health study in the area.

I officially left the case in mid-2005 and had to sue Donziger and the LAP to recover over \$100,000, of unreimbursed expenses from my time working with the case, and from purchasing equipment, paying salaries, and laboratory fees for the case.

After 2005 I was out of the case, the lawsuit was settled, and I was following events as they appeared in the press. In 2009 I heard about and puzzled over the report that the amount of the lawsuit had increased to \$27 Billion, and wondered how it could have come about, until I hear the term, "Unjust Enrichment". About \$9 Billion of the \$27 Billion amount was for that purpose, and to me it said, "Gringo, we feel that you made too much money, and we want it back!" Other than that I could find no justification for the \$27 Billion dollar estimate, and was uncomfortable enough with the original \$6 Billion estimate that I issued a Cease and Desist letter to Donziger in late 2005, telling him that the estimate was high by a very large factor, and that it should not be used. Donziger ignored me and continued to use the estimate.

There is an old expression about wrestling with a pig, "Both of you get dirty, and it annoys the pig." The same can be said of annoying a very obnoxious lawyer. It cost him time to file a lawsuit, but it cost you real money! I didn't feel that I could do anything further to dissuade Donziger, and since I was out of the case, I assumed a lower profile, returning to my work. Calmbacher went to work for a very important medical device manufacturer, where he is head of Environment, Health and Safety. Both of us were a bit surprised when Chuck was contacted in 2012 to give a deposition about his testimony and work in Ecuador. Through a friend, I was tipped off that I might also be deposed in the matter of a RICO lawsuit.

RICO Lawsuit

Some of you will ask, RICO?. What's a RICO Act lawsuit? RICO is the acronym for Racketeering Influenced Criminal Organization, (PL 91-452, 84 Stat 922) enacted on October 15, 1970 as part of the Organized Crime Control Act. Racketeering activity is defined as "a violation of statutes against" 35 specific criminal acts, including extortion, bribery, counterfeiting, fraud, and other acts such as murder, gambling, arson, etc. It was designed at

the time to control the influence of the Mafia in the US, and has been widely used to take apart criminal conspiracies and organized crime.

Under the act, any two acts occurring within 10 years of each other can subject one to RICO Act Prosecution. While this is generally used by a District Attorney in going after criminals, there are provisions in the law which permit private RICO actions. Chevron brought such a lawsuit against Steven Donziger, and the people supporting the Lago Agrio plaintiffs.

BUT WHY?

This is not simply a case of the Empire Strikes Back (with apologies to Lucas Films), but an actual case where there was an ambitious and perhaps hungry lawyer who consciously broke the law, falsified data and documents submitted to the Ecuadorian Court, bribed a judge, and corrupted the independence of the judiciary by bribing an independent expert for the court to produce an opinion in his favor, and then attempted to use the results of his criminal enterprise to extort between \$9.5 and \$19 Billion Dollars from Chevron. It will come out later, that even if he had been successful in his enterprise, the money received would have gone to an offshore banking account beyond the reach of the Ecuadorian Courts, where it would be distributed as selected by the victors in the lawsuit, and not necessarily on behalf of those for whom the lawsuit was allegedly brought^{xxiv}.

In fairness, Chevron is an easy target. The visual pollution could easily lead one to conclude that the entire region is a cancer cluster from the effects of oil^{xxv}. But there is much more to the story. According to one of Chevron's experts Kirk O'Reilley, the weathering effects of crude are such that the most carcinogenic fraction in crude (BTEX or Benzene, Toluene, Ethylbenzene, and Xylene) disappear very quickly in the environment^{xxvi}. This is what our own sampling confirmed, a lack of the most carcinogenic compounds, even in areas where we were

looking at petroleum layers in the soils. The BTEX compounds just did not exist. As mentioned above and in the endnotes, the lack of BTEX indicated that the materials were not as carcinogenic as originally alleged. This points to the idea, that, while unsightly, the pits were not really a source of the alleged cancer clusters. In fact, the presence of BTEX would indicate a much more recent and ongoing source- PetroEcuador's continuing operations.

2007 and onwards

It is at this point that we'll introduce several additional names. These names are Pablo Fajardo an Ecuadorian Attorney for the FRENTE (acronym for the Lago Agrio based organization of indigenous people in Ecuador); Richard Cabrera, the settling expert for the court who was charged to perform an impartial investigation of the entire region and provide a damage estimate for the basis of the Court's findings; Judge Zambrano, the circuit judge who assumed the responsibility of deciding the case in it's final stages; Alberto Guerra, an Ecuadorian Judge whom Zambrano paid to write the decisions he ultimately signed; Douglas Beltman and Ann Maest of Stratus Environmental, a Colorado based consulting firm, who created the phony scientific evidence used to create the appearance of environmental damage and health impairment from Chevron's pollution. These people will all become important in their own right as the story continues.

The case GEO left in 2005 continued under Donziger's direction through several more months until it hit Sacha 53, which was a site Texaco Remediated. The LAP considered that site important as it would have given lie to Texaco's claim to have remediated the sites. In order to insure that the conclusions reached were favorable to the LAP, Donziger arranged for additional experts to be present at the site and to review the Perito's findings and their reports. The problem was that the experts were being bribed (\$50,000) for their opinion favorable to the

LAP. The Judge was not interested in the experts, nor their opinions, and the experts actually reported favorably that Texaco had remediated the well and pits at Sacha 53. So, because the tide of scientific evidence was going against him, he arranged to cancel the balance of the inspections and have one special Settling Expert appointed to develop a cost estimate for the remediation. Donziger wanted a global expert he could control and who would find for the LAP and against Texaco.

Donziger pressured (read extorted) the judge with threats about a supposed sexual harassment lawsuit, and finally got the judge to cancel the remaining Judicial Inspections and appoint his nominee for a supposedly independent settling expert to review the entire case and advise Judge Yanez. Donziger needed the expert to appear to be impartial, but also to be someone who he could control and who would find that as the global expert, he would “need . . . to state that Chevron was the only party responsible for environmental damages and the harm to the local community”^{xxvii}. In Richard Cabrera, he ultimately found his agent.

On June 13, 2007, Richard Stalin Cabrera Vega (Cabrera) was officially sworn in as the global damages expert. The Lago Agrio court required Cabrera to "perform his duties ... with complete impartiality and independence vis-à-vis the parties." But privately, Cabrera—and his official conclusions—had already been predetermined and paid for by the plaintiffs' lawyers. The plaintiffs' lawyers opened a "secret" bank account to pay at least \$100,000 bribes and hush money to Cabrera. These secret payments were in addition to the \$263,000 plaintiffs acknowledged paying Cabrera for the work he was supposed to do independently for the court, but which plaintiffs were secretly doing for him^{xxviii}.

Meanwhile a film crew who made the movie **CRUDE** were permitted to come into Ecuador and follow Donziger around and film many of his meetings. That was one of the keys

to Donziger's ultimate undoing. Ex-parte meetings with the Judge, and frank conversations with other consultants, and Donziger's own words damned him and came back to haunt him when the film's outtakes were obtained by Chevron through a legal proceeding.

Cabrera was unqualified to perform the entire assessment and develop the risk assessment and the damages, so Donziger hired Doug Beltman and Ann Maest of **Stratus Consulting** in Denver Colorado, and initially paid them \$300,000 to ghost write the assessment report for Cabrera. There was just one problem—at a meeting with Donziger in a restaurant in Quito, Ms. Maest is admitting that they don't have any data, to which Donziger told them:

“Facts do not exist, facts are created.” And to essentially, “Make this stuff** up!”^{xxixxxx}

Additionally, Donziger hired a company Uhl, Baron & Rana Associates to develop an equally phony potable water report as part of the Stratus effort.

The Cabrera/Stratus report set the damages demand to \$16.6 Billion Dollars. The original of the report was in English but it was translated into Spanish and submitted and signed by Cabrera as if it was his own work, *as an independent expert for the Court*. The report, the sampling sites, and all aspects of the report were prepared by the LAP and any attempts by Chevron to accompany Cabrera during his field work to insure his independence were blocked by the LAP and trumpeted as an attempt to influence Cabrera. The Cabrera report was a complete and yet inaccurate fabrication and missed important details in calculating the damages. The report missed details like the average depth of the drill pits (actually 1.3-1.5 meters) not 5 meters, and the number and size of the pits themselves. The Cabrera report also included an interesting item of over \$8 Billion for “unjust enrichment”-

a term which claims that Texaco unjustly profited by cutting corners and not installing adequate pollution control and cleanup measures.

The extent of the deception at this phase is breathtaking. Donziger and his team had experts lined up by Stratus and others to criticize their own report, to make it appear that the report that they wrote was independently generated and favored Chevron. In their criticism they inflated the costs from the \$16.6 Billion that Zambrano awarded to \$27 Billion. The \$27 Billion quickly became the highly publicized figure. Stratus was paid almost \$1 Million for their efforts at writing the Cabrera report and then creating additional responses in its defense.

That the Cabrera/Stratus report is a phony, there is no doubt. Sworn testimony by Maest and Beltman, and videotape of Maest indicating that Stratus had no data and there was no indication of any contamination only clarify the degree of the deception.

Donziger had Zambrano in his pocket with a \$500,000 bribe, and Zambrano had Guerra to write the judgment documents for him to justify the award. Donziger and his team ghost wrote the judgment with Guerra, and it reflected only one opinion, that of the LAP Plaintiffs.^{xxx}

Zambrano did not write the judgment, and under oath he could not even recall the most significant and major parts of the 188 page judgment, let alone any of the technical details^{xxxii}. That the judgment is of questionable authorship there is no doubt. The US Court has pointed out that the LAP's laboratory, Selva Viva (Living Forest), routinely misinterpreted analytical results such as claiming that the concentration of Mercury in the soils was 7 mg/Kg, when the actual concentration determined by the laboratory was a non-detect, and the actual value was a non-detect at <7mg/Kg.^{xxxiii} and that data found its way into the Zambrano judgment.

The Ecuadorian Courts reduced the \$27 Billion dollar judgment to \$19.5 Billion and then later to \$9.5 Billion if Chevron would apologize to Ecuador. However, this does not prohibit the

LAP from initiating a suit against Chevron or anyone else for “provable health damages”- an very high and very difficult standard for the Plaintiffs.

Chevron unravels the deceptions.

The movie **CRUDE**, the production of which was solicited by Donziger, from a wealthy potential investor proved to be key in unraveling the deceptions. There were outtakes in the Netflix version of the film which were not in the DVD version. “Someone at Chevron noticed,” and that became the basis for the suspicions that the entire court proceeding in Ecuador was rigged against Chevron. It should be noted that the extent of the corruption touched a lot of people involved or associated with the LAP lawsuit, and even went up to the office of Rafael Correa (President of Ecuador), who promised to help the LAP and who has been a strident and vocal critic of Chevron^{xxxiv}.

At one point, in about 2008, there was some talk about the Government of Ecuador arranging or sponsoring some remediation of the pits. We initially expressed interest in the cleanup process but were advised that one could obtain a very large contract for cleanup of the pits by paying an introduction fee of \$3 Million to the sister of a government official in Ecuador. We could not afford the fee, and did not want to get involved in the corruption on that sort of a contract.

There was some cleanup of some of the pits in Ecuador, and the reported cost was approximately \$100,000 per pit, but Donziger and Farjardo stopped the processes because it could jeopardize their lawsuit by exposing the falsity of Cabrera’s remediation estimate.

A lawsuit is expensive, and this one is very expensive, to conduct, both from the standpoint of the laboratory and field expenses, but also from the length of the case, and the number of parties involved. Donziger had several sources of funding. Originally Kohn Swift Law Firm from Philadelphia had a falling out with Donziger over the work of Stratus and their involvement in the Cabrera report, but others would step forward. The law firm of Patton-Boggs in Washington, and Russell DeLeon, an wealthy Internet Gambling entrepreneur. Both parties and several others agreed to help fund the lawsuit for a share of the profits from the settlement, and Patton-Boggs was going to help pursue the judgment in non-Ecuadorian courts where Chevron had assets. The Invictus strategy they proposed was to pursue and enforce the Ecuadorian Court judgment in many other countries where Chevron had assets.

Donziger stood to make \$600 million as a contingency fee from the case if the judgment was collected. All monies from the judgment were to be received in an offshore account, out of the judicial reach of the Lago Agrio Plaintiffs^{xxxv}.

The Trial:

Chevron filed a RICO lawsuit against Donziger, Fajardo, Luis Yanza, and several parties in February 1, 2011. The trial was held in New York District of the Federal Court in October, 2013. The findings from the Court are referenced in this paper. Judge Kaplan's Opinion is 497 pages and it was issued on March 4, 2014, and it found for Chevron, in that:

In this case, the evidence at trial established that Donziger, a New York lawyer and resident, here formulated and conducted a scheme to victimize a U.S. company through a pattern of racketeering. That pattern included substantial conduct in the United States – e.g., the bulk of Donziger's overall supervision of the entire operation; much of

Donziger's fund raising activity ghostwriting of the Cabrera Report, which occurred mainly in Boulder, Colorado, and was supervised by Donziger from New York; much of the pressure and lobbying campaign designed to injure Chevron's reputation and impact its bottom line and its stock price, a campaign micromanaged by Donziger that employed many U.S. public relations advisors and lobbyists; the making of Crude by a New York-based and recruited film maker; and the improper efforts to ward off discovery through U.S. courts of what really had taken place with Cabrera, Stratus, and the LAPs. Much of the funding came principally from Kohn in Philadelphia and Burford, which operated at least partly in the United States. Absent the U.S. activity, there would have been no scheme. Even had there been one, it would have been doomed to failure, without that activity.

The Court has enjoined Donziger and those of the US Defendants from benefiting in any monies collected by the lawsuit. So far, Ecuador has seized approximately \$96 Million from Chevron by eliminating their copyright and intellectual property and royalty agreements for products sold under the Chevron and Texaco trade names..

Naturally the case is under appeal, and should be decided at the end of 2014 in the US Court of Appeals. The Patton-Boggs law firm is also being sued by Chevron as a party to the Ecuador case, and it is understood that the Patton-Boggs firm is in serious financial trouble because of the case, and is on the acquisition market.

Lessons Learned and Advice

There are several lessons to be learned from this case. It has been a long and troubling experience for Chuck Calmbacher and Dave Russell. There are some bright spots, because both of us have had our professional reputations, which were excellent in the first place, cleaned of the stain of our involvement in the Ecuador case. The Court has found both of us to be credible witnesses, and Steve Donziger and the LAP defendants, are not!

Russell and Calmbacher are scientists. As such, we stayed with our respective disciplines, and attempted to do the right thing without regard to the political implications surrounding the case.

We both went into this situation without a clear understanding of the politics of the case which were deliberately concealed from us. Don't let that happen to you!

The advice is simple, and was summed up by Reed Brodsky, Esq. for Gibson, Dunn and Crutcher, the lawyers for Chevron when we were giving evidence. **"Tell the Truth!"**

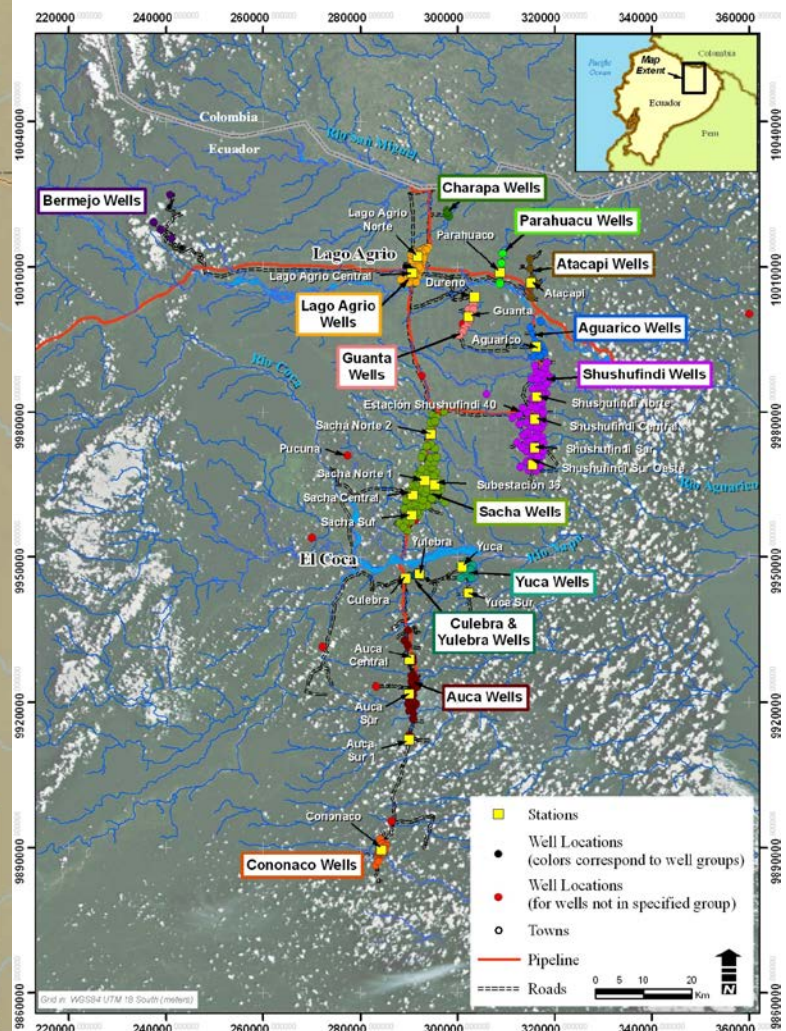
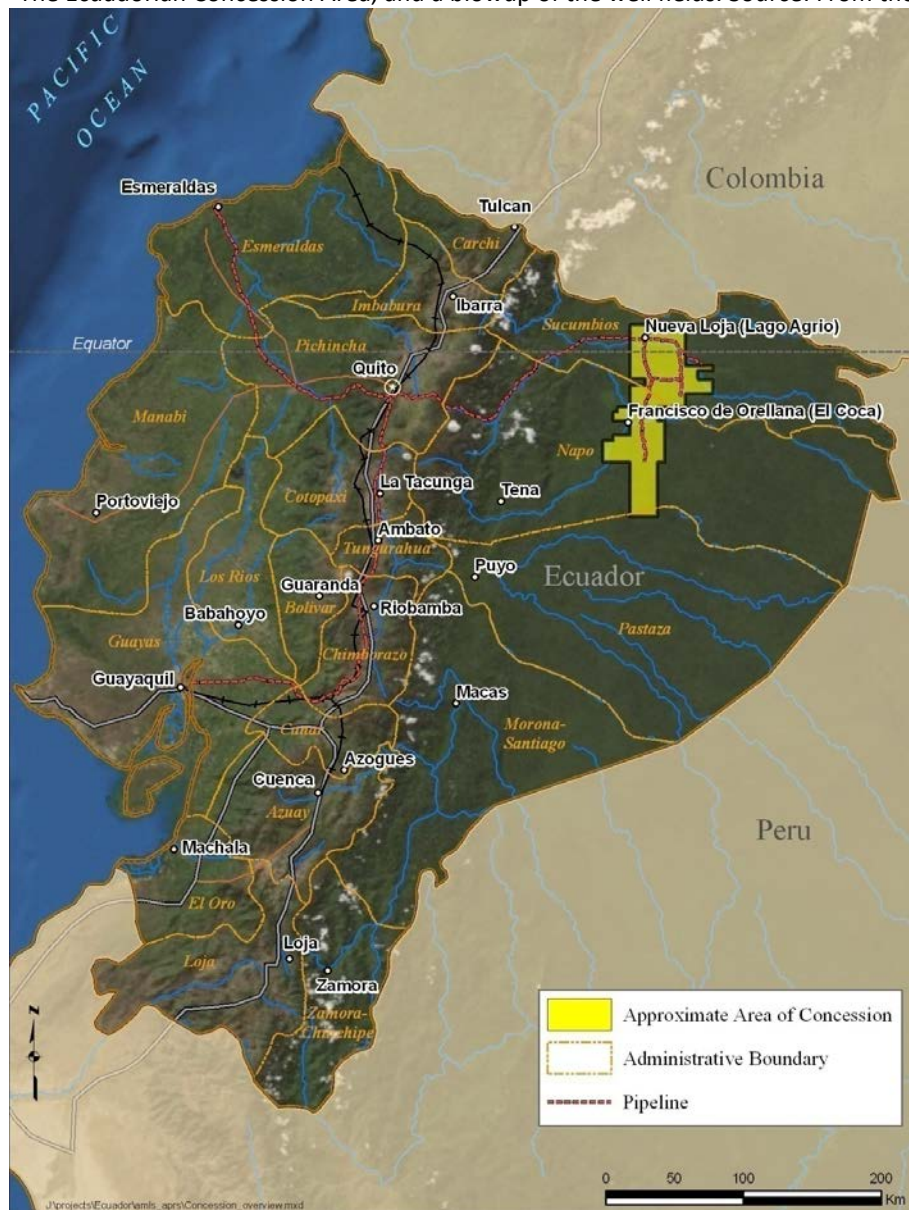
Our dedication to the science and the truth that saved us from the same fate as Doug Beltman and Ann Maest and Stratus Environmental whose reputation was sullied by their deceptions. It also helped us to eliminate costly legal expenses because we had nothing to hide or conceal.

A second bit of advice is to keep a copy of all the documents you authored in a secure place away from your office. Such is the nature of our society, and where money is involved, reputations can be sullied, files can disappear, and reports can be altered.

Third, make your work transparent. Someone may come in and review and criticize your work and assumptions, but if you are honest and have nothing to hide, the worst that they can do is accuse you of making a mistake.

Fourth, Work as if your reputation depended upon it because it does! In this regard, the Honor Code of the students at the US Military Academies: "A Cadet will not lie, cheat or steal, nor tolerate those who do." Not a bad way to live.

The Ecuadorian Concession Area, and a blowup of the well fields. Source: From the www.Chevron.com/Ecuador website



ii

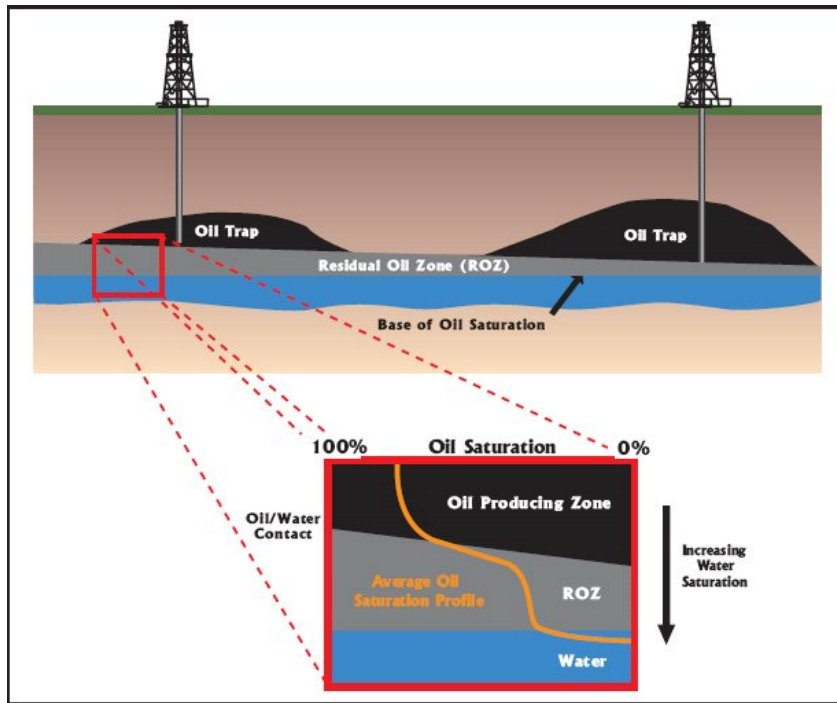
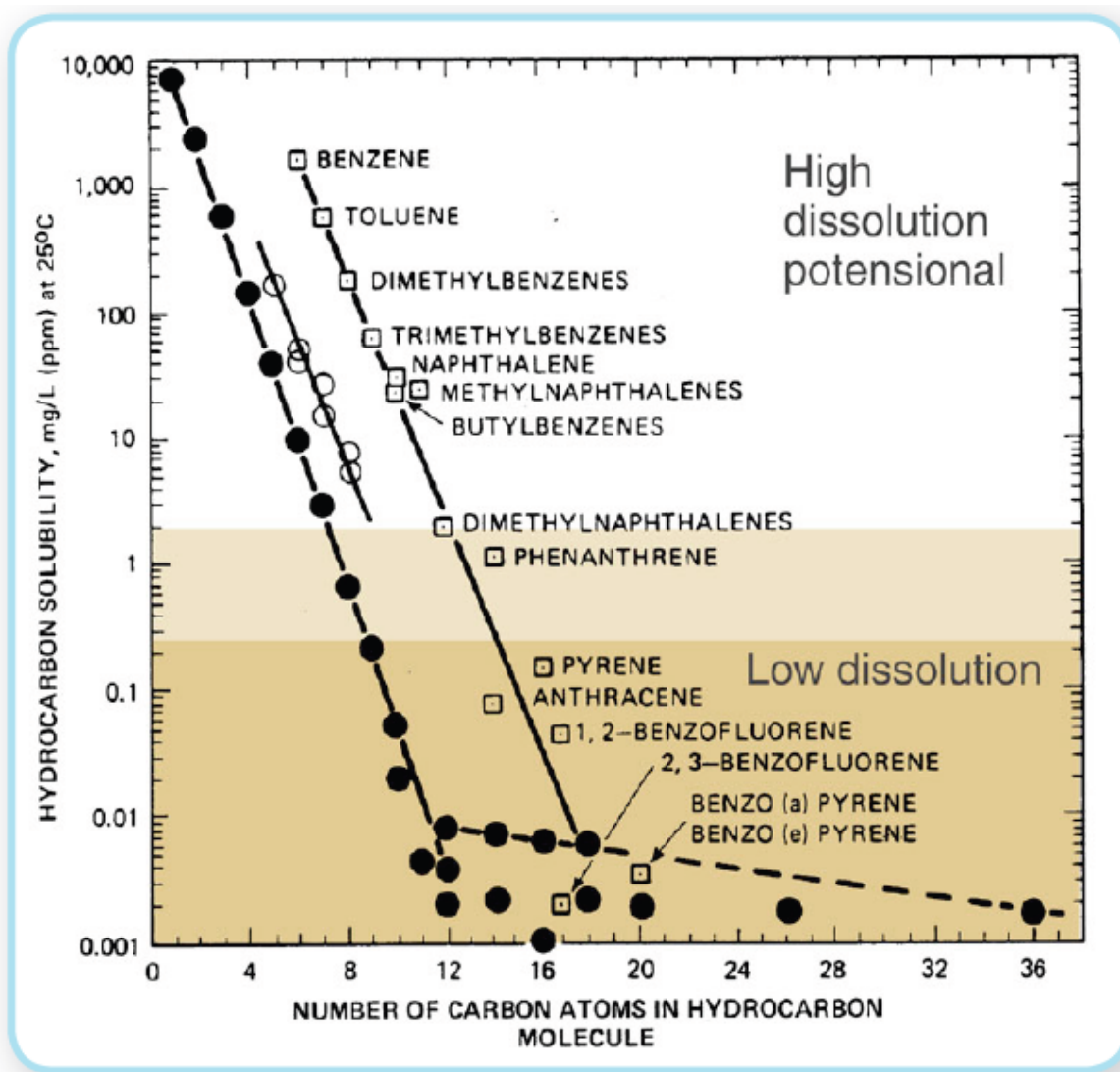


Photo from www.theoildrum.com/story/2006/8/14/234510/845

iii Oil and water are, to a limited extent, mutually soluble. Things such as turbulence, time, temperature, and residence time can affect the solubilities. See: <http://www.ogj.com/articles/print/volume-108/issue-46/processing/how-temp-affects-h2-o-solubility-in-alkanes.html> and <http://www.eoearth.org/view/article/51cbf04e7896bb431f6a126e/>



Typical values from EPA for California Produced Water from oil formations, Table 8 of the Development Document (1979 Initial Rulemaking) shows:

Range of Constituents in Produced
Formation Water--Onshore California

<u>Pollutant Parameter</u>	<u>Range, mg/l</u>	<u>Median, mg/l</u>
Oil and Grease	16-191	75
Suspended Solids	3-51	31
Total Dissolved Solids	580-27,300	6,300
Phenol	0.07-0.15	0.11
Arsenic	<0.01-0.03	0.11
Chromium	<0.01	<0.01
Cadmium	<0.005-0.02	<0.005
Lead	<0.05	<0.05
Barium	<0.2-0.4	0.3

< = less than

^{iv} In the US, drill pits are cleaned up after well completion, and most of the petroleum producing states have abandoned drill pit remediation programs. <http://www.fws.gov/mountain-prairie/contaminants/documents/reservepits.pdf>
also see: <http://water.epa.gov/scitech/wastetech/guide/oilandgas/> and

^v From the EPA Document "Report to Congress: Management of Wastes from the Production of Crude Oil, Natural Gas, and Geothermal Energy, Volume 1 of 3," EPA 530/SW-88 -003, December 1987.

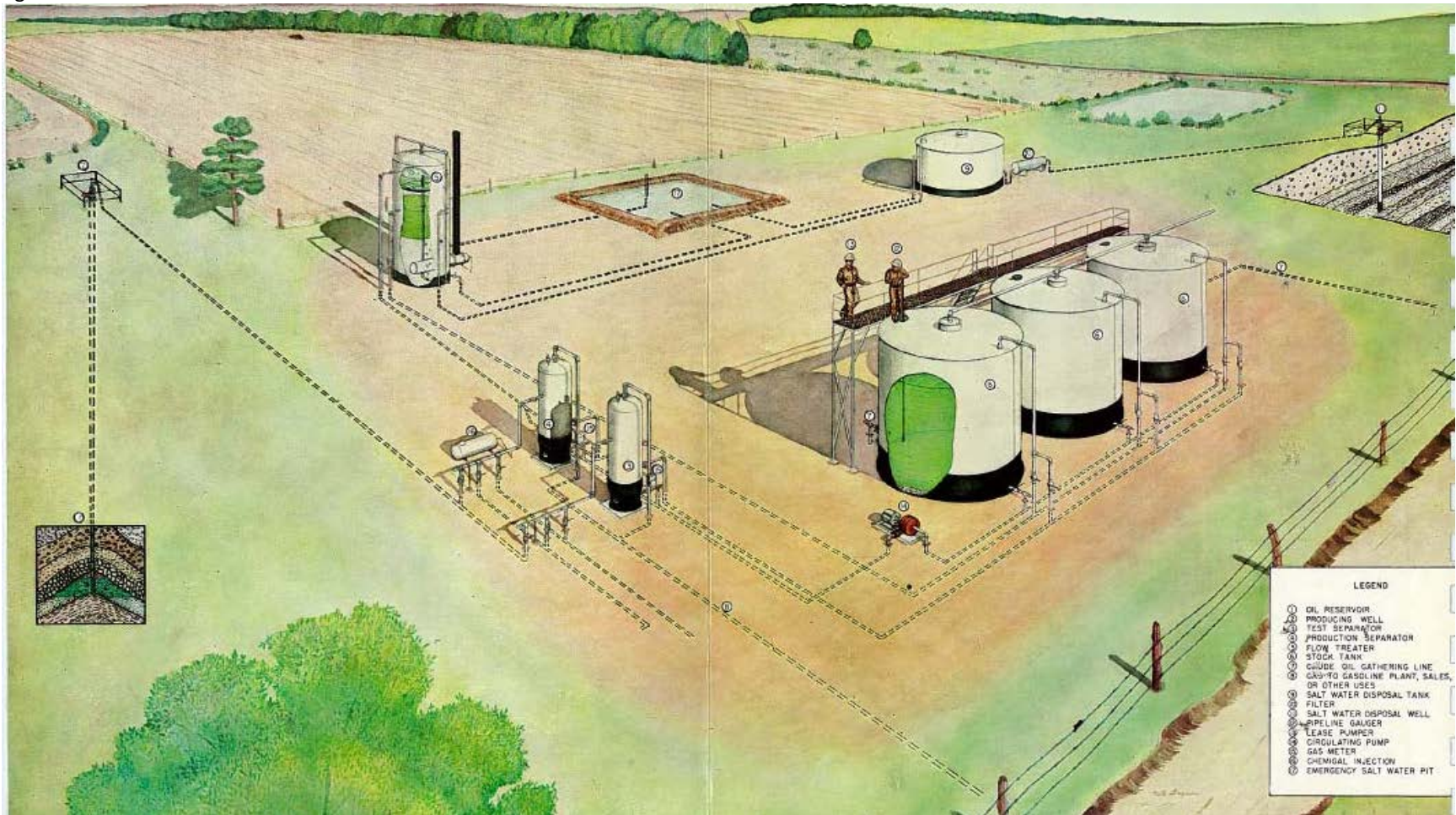
Table V-1 Model Constituents and Concentrations^a

Produced water constituents	Concentrations	
	Median (mg/L)	Upper 90% (mg/L)
Arsenic	0.02	1.7
Benzene	0.47	2.9
Boron	9.9	120
Sodium	9,400	67,000
Chloride	7,300	35,000
Mobile ions ^b	23,000	110,000

Drilling waste (water-based) constituents	Concentrations					
	Pit liquids		Pit solids/TCLP ^c		Pit solids/direct	
	Median (mg/L)	Upper 90% (mg/L)	Median (mg/L)	Upper 90% (mg/L)	Median (mg/kg)	Upper 90% (mg/kg)
Arsenic	0.0	0.16	0.0	0.002 ^d	0.0	0.010
Cadmium	0.056	1.4	0.011	0.29	2.0	5.4
Sodium	6,700	44,000	1,200 ^e	4,400 ^e	8,500	59,000
Chloride	3,500	39,000	2,000 ^f	11,000 ^f	17,000	88,000
Chromium VI	0.43	290	0	0.78	22	190
Mobile ions ^b	17,000	95,000	4,000	16,000	100,000	250,000

^{vi} The first environmental regulations were issued after 1973. The USEPA and OSHA were both created by the Nixon administration in 1973. Environmental regulations were not really promulgated in the US until about 1975.

vii Typical Separation Station according to API. Circa 1962. Source: www.chevron.com/Ecuador-Stratus/ Beltman powerpoint presentation to the Court in Lago Agrio.



viii One of the separation stations in Ecuador. Note that this station did not have any method of reinjection of the separated formation water, and it was discharged into the upper reaches of the Amazon River.



^{ix} The TCLP test is found in 40 CFR 261. A sample of waste is first diluted 20 fold with a dilute solution of acetic acid and then containerized and shaken for 24 hours. The liquid extractant is measured for Hazardous Waste Constituents.

^x PX 246 (*Acta* Final by and between the Government of the ROE, PetroEcuador, Petroproduccion, and Texaco Petroleum Company).

^{xi} *Aguinda v. Texaco, Inc.*, No. 93 Civ. 7527 (JSR) (filed Nov. 3, 1993) (hereinafter “*Aguinda*”); see also *Republic of Ecuador v. ChevronTexaco Corp.*, 376 F. Supp. 2d 334,

341 (S.D.N.Y. 2005).

^{xii} Personal Recollection

^{xiii} Judge Kaplan's Opinion: Case 1:11-cv-00691-LAK-JCF Document 1874 Filed 03/04/14 Page 26-27 of 497 and Footnote 43.

^{xiv} Some of these photos are from the "Toxic Tour" a standard tour of contamination sites given to activists, celebrities, and potential donors to help convince them that Chevron was the regions' worst bad guy.







This is the Texaco Well Number 1, located just outside Neuva Logia.

^{xv} This is a swamp in the Shushufindi Region. The oil is from a PetroEcuador spill.



^{xvi} **Amazon Stranger: A Rainforest Chief Battles Big Oil**, by Mike Tidwell (Lyons Press; April 1, 1996, ISBN-10: 1558214062)

^{xvii} Judith Kimmerling, an attorney and publicist for the LAP characterized the Oriente Region of Ecuador as follows: *Indigenous peoples comprise an estimated forty percent of Ecuador's population. Ecuadorian society, however, is characterized by deep racism, widespread poverty, extreme inequality, and discrimination against indigenous peoples and the poor. Illiterate Ecuadorians were not allowed to vote until 1979. Amazonian peoples live far from the centers of power and seat of government; poor transportation and communication services augment the geographical distance. Cultural, historical and linguistic distances further separate Amazonian peoples from their government. To the government, Amazonia is a vast land with few people, a frontier to be conquered, a source of revenue for the debt-burdened state, and a safety valve for land distribution and population pressures.*
Source: *INTERNATIONAL STANDARDS IN ECUADOR'S AMAZON OIL FIELDS: THE PRIVATIZATION OF ENVIRONMENTAL LAW*
Judith Kimerling Copyright © 2001 Columbia Journal of Environmental Law; Judith Kimerling

^{xviii} The work of San Sebastian has been challenged in the scientific literature: [Suresh H. Moolgavkar](#), [Ellen T. Chang](#), [Heather Watson](#), and [Edmund C. Lau](#), (www.ncbi.nlm.nih.gov/pmc/articles/PMC3889987) essentially refutes the San Sebastian Study, in stating in the summary:

Results

Overall and site-specific cancer mortality rates were comparable between oil-producing and non-oil-producing cantons. For overall cancer mortality in males and females combined, the RR comparing oil-producing to non-oil-producing cantons was 0.85 [95 % confidence interval (CI) 0.72–1.00]. For leukemia mortality, the corresponding RR was 0.80 (95 % CI 0.57–1.13). Results also revealed no excess of mortality from acute non-lymphocytic, myeloid, or childhood leukemia. Standardized mortality ratios were consistent with RRs. Canton-specific RRs showed no pattern in relation to oil production volume or well-years.

Conclusions

Results from this first ecologic study to incorporate quantitative measures of oil exploration and production showed no association between the extent of these activities and cancer mortality, including from cancers associated with benzene exposure.

^{xix} These photos were taken during the trial in Nueva Loja (Lago Agrio), Ecuador the source is the AP wire.





(FOTO AP)



(FOTO AP)



(FOTO AP)



(FOTO AP)



(FOTO AP)



^{xx} This is a photo of some of the crew sampling prior to a Judicial Inspection at Sacha 10



^{xxi} Some will ask how I know that the reports were re-written with different conclusions. In 2012, and 2013 Dr. Calmbacher and I were supplied with copies of the translated reports in English, and in Spanish, and in a deposition, Dr. Calmbacher

indicated that he did not write the report. I can confirm that from my personal knowledge and review of the translation of the report supplied to the Lago Agrio Court.

xxii See USEPA Analytical Methods 418.1 for Gasoline Range Organics and Diesel Range Organics

xxiii See Chevron-Ecuador Opinion [Case 1:11-cv-00691-LAK-JCF Document 1874 Filed 03/04/14 Page 70](#)

xxiv In fact, many of the original LA Plaintiffs were illiterate, and were, according to their testimony, that they were signing the complaint not to become a party in a class action lawsuit, but to receive medicine.

xxv The region around Lago Agrio has become a “tourist attraction”. Visiting celebrities and potential investors, and anyone with media celebrity and potential influence are taken on the **“TOXIC TOUR”** of the most highly visible and open pits where the contamination is the worst. Celebrities who have taken the Toxic Tour include Trudie Skyler, Darryl Hannah, Bianca Jagger, and many many others.

xxvi O'Reilly, Kirk and Thorsen, Waverly(2010) 'Impact of Crude Oil Weathering on the Calculated Effective Solubility of Aromatic Compounds: Evaluation of Soils from Ecuadorian Oil Fields', Soil and Sediment Contamination: An International Journal, 19: 4, 391 — 404

xxvii Opcit. Pg. 80

xxviii This summary was taken from the Chevron Website, and according to the court records cited above, it appears to adequately characterize the actions of Cabrera. <http://www.chevron.com/ecuador/patternoffraud/#b3>

xxix Crude outtakes and the Depositions of Douglas Beltman and Ann Maest of Stratus Consulting.

xxx An excerpt from the Opinion is telling—Donziger, Maest, and others are discussing the evidence and the report: Op Cit.page 92

When Maest noted that “right now all the reports are saying it’s just at the pits and the stations and nothing has spread anywhere at all,”

Donziger replied, “That’s not true. The reports are saying the ground water is contaminated because we’ve taken samples from ground water.”

Maest responded, “[t]hat’s just right under the pits,”

to which Donziger responded: “Yeah, but, that is evidence. . . . *Hold on a second, you know, this is Ecuador, okay . . . You can say whatever you want and at the end of the day, there’s a thousand people around the courthouse, you’re going to get what you want. Sorry, but it’s true.* . . . Okay. Therefore, if we take our existing evidence on

groundwater contamination which admittedly is right below the source And wanted to extrapolate based on nothing other than, our, um, theory that it is, they all, we average out to going 300 meters in a radius, depending on the . . . gradient. We can do it. We can do it. And we can get money for it. . . . And if we had no more money to do more work, we would do that. You know what I'm saying? . . . *And it wouldn't really matter that much. . . . Because at the end of the day, this is all for the Court just a bunch of smoke and mirrors and bullshit. It really is. We have enough, to get money, to win.*"

xxxi See [Case 1:11-cv-00691-LAK-JCF Document 1874 Filed 03/04/14 Pages 160-169](#)

xxxii Op cit. Pages 196-209, and the court document includes such gems as the fact that Zambrano, and his secretary who do not speak French or English, relied heavily on citations in support of their authorship in languages which they do not speak or read. Also, at issue, is the issue of the speed which Zambrano read over 200,000 pages of testimony and evidence and rendered his 188 page decision in a matter of a few weeks at most.

xxxiii Op cit., Page 220-221

xxxiv Op cit., Page 210

xxxv Op cit., Page 235, and 271-272 and page 483