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A SPECIAL ROYAL-VISIT ALBUM

Maclean's

WOMEN IN FEAR

Abductions, sexual assaults and murders of women are causing growing alarm among Canadians. A campaign to end the reign of terror has begun.

Caroline Case, 47, of Etobicoke, Ont., missing since Oct. 2

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SAFETY BOSS

Safety Boss crew tackling a flaming well: danger, foul air and oil everywhere

Letter from Kuwait

The end of a firestorm

Some experts said that it would take years. But the oilfield inferno that Iraqi troops ignited before withdrawing from Kuwait in February has almost been extinguished. This week, Kuwait's emir, Sheik Jaber al-Ahmed al-Sabah, will ceremonially douse the flames at the last burning well. Maclean's *Correspondent Frank Touby was part of the international team fighting the blaze. A veteran journalist, the 52-year-old Touby joined Calgary-based Safety Boss Ltd., arriving in Kuwait in early October. His report:*

Birds flutter near the last of the hellish flames; cobras and large yellow lizards dart across the sand, and desert rats lick sticky black tar from their feet. Even the palm trees standing in a pool of oil in the ruling emir's burned-out garden in Kuwait City stubbornly produce new growth. Eight months after the end of the Persian Gulf War, Kuwait is slowly returning to life. And late on Oct. 24, after working almost 200 gruelling days under the perpetual night of thick, smoke-blackened skies, Canadian firefighters saw something that they had not witnessed in the Kuwaiti sky for months: the sun. The men stood in awe as the huge red ball set in the west, its reflection shining off a lake of crude. Nearby, the arm of a corpse protruded from the sand—casting long, delicate shadows from withered fingers.

Thousands of dead Iraqi soldiers and bombed-out vehicles littered the desert when Canadian and other foreign firefighters arrived in Kuwait shortly after the country's Feb. 26 liberation. Fleeing before advancing allied forces, the Iraqis had bombed 732 of the country's 940 wells, setting an estimated 670 of them ablaze—the world's worst oilfield disaster and a serious threat to the global ecology. About six million barrels of oil spewed from the damaged wells each day. Most of it burned from roaring geysers into a toxic 600-mile-long plume of smoke that spread across the Persian Gulf region; some of it just gushed out onto the desert.

Firefighters encountered lakes of crude oil so deep that they considered navigating them with rowboats. And the lakes were lethal. In April, two *Financial Times* of London journalists and three Indian workers got lost in thick smoke on a highway through the Ahmadi oilfield. They drove into a lake of burning oil and were engulfed in flames.

For Kuwait, which depends on oil for its wealth, the fires were an economic disaster, as well. The country now produces about 300,000 barrels of crude each day, and expects to be able to reach its prewar production capacity of two million barrels a day within two years. But when the wells were destroyed, about $120 million in crude went up in smoke every day. By the time the last well is capped this week, Kuwait will have lost more than two per cent of its 94.5 billion barrels of proven reserves.

It could have been worse. Kuwaiti officials predicted that all the well fires would not be out before March, 1992. And some experts, including Texas firefighting legend Paul (Red) Adair, maintained that it could take three to five years. The Kuwait Oil Co. hired Red Adair Co. Inc. and two other American firms, Boots & Coots Inc. and Joe Bowden's Wild Well Control Inc., to begin the cleanup effort last March. Calgary's Safety Boss began a month later, and together the companies became known as the Original Four. But as those firms perfected their techniques, the effort accelerated. And in the last few weeks, as many as 28 companies were fighting the oil fires, including teams from Kuwait, France, Hungary, China and Iran.

The blowout companies will not reveal their exact rates, but they charge an estimated $50,000 to $100,000 per day. Still, as a result of the accelerated schedule, Safety Boss and the big three U.S. firms will leave with less than the bonanza that they had at first anticipated. "I'm glad to see the fires out," said Ronald (Shoey) Shoemaker, 33, a member of the Safety Boss crew from Sylvan Lake, Alta. "But I'm sad I'm out of work." Jobs in Alberta's Oil Patch are scarce, Shoemaker said, adding that he had hoped to work in Kuwait until March.

The workers themselves earned from $400 to $2,000 a day, depending on experience and the danger of their assignments. For that, they endured hellish temperatures that soared to 55° C in July—and up to 480° C (900° F) outside the galvanized metal shacks that protect firefighters working near the burning wells. Oil coated everything and everyone—and the air was so thick and foul that many of the workers, generally in Kuwait on 28-day rotations, spent much of their home leaves coughing their lungs back to health.

SAFETY BOSS

Crewmen wrestle with a damaged wellhead: an ever present danger

In early discussions about the project, representatives of the three U.S. firms viewed the Canadians as upstarts, according to Michael Miller, the 47-year-old owner of Safety Boss, a company that his father, Kenneth (Smokey) Miller, founded in 1956. When Safety Boss's first contingent flew into smoke-bound Kuwait City in a lumbering C-5 transport plane on April 8, Miller said, some of the Texans laughed at his bright red fire trucks, saying that they better suited a municipal fire department. Declared Miller: "They didn't take us seriously. I was going to make sure they did." In fact, Safety Boss officials said late last week that they had capped 178 wells—about 30 per cent more, they claimed, than their closest American contender, Boots & Coots.

The red fire trucks proved useful. Firefighters trying to douse a burning well, or cool the area around it, place metal shacks housing their water cannons upwind from the fire, allowing the wind to blow the spray of oil and volatile natural gas away from them. But in the Kuwaiti desert, the winds often shift suddenly, forcing the crews to abandon their positions. Safety Boss used portable fire hoses connected to their fire wagons, which in turn were connected to water-tanker trucks—and the whole network could be moved around the site in minutes when the winds changed. When the fires proved particularly difficult, the Calgary-based company used potassium bicarbonate, a dry powder that denies fire the oxygen that it needs to burn, in order to douse the flames.

After the crews extinguished the fires, they had to cut off the oil gushing from the wells in order to recap them. The crews inserted so-called stingers, hollow devices with tapered tips, into the well. Then, they pumped mud at high pressure through the stingers into the pipes and down into the formation below, stemming the oil supply and allowing the men to apply the caps.

Still, capping wells spewing oil and natural gas was a dangerous task. After months of burning, mounds of searing coke, or carbon byproduct, often formed around the wellhead. Pools of oil continued to smoulder, and there was an ever present danger that the well could reignite around the capping crews, coated in oil, or "gooped," in Oil Patch jargon.

In July, it happened. Dwight Matson, 28, of Drayton Valley, Alta., was in an oily hole struggling with a wrench to pry a fire-damaged bolt from the wellhead. Calvert Vallet, 27, of Edmonton, was coming out of the hole when the fire relit. Declared Vallet: "I'll never forget turning back and seeing Dwight coming out of that hole with fire on his back. The look on his face, that's what I'll remember—it was sheer terror." Maurice Engman, 31, of Calgary, aimed the water cannon at Matson and put the fire out. "He saved Dwight's life," said Vallet. Matson suffered second-degree burns over 25 per cent of his body. The incident inspired another innovation: the use of a track hoe to break loose and remove a damaged wellhead instead of sending in the men.

As of last week, an estimated 20 people from the various firefighting companies had been injured on the project, although there were no deaths in the field since the five in April. And like soldiers in combat, the firefighting teams developed a deep mutual trust and sense of interdependence. "If you run, I'll kill you," was a common phrase, and not entirely a joke, among the firefighters.

There will likely be only one fire left burning this week: at well No. BG-118 in the Burgan oilfield. Sheik Jaber al-Ahmed al-Sabah will start up the machinery, and a Kuwaiti crew, including engineer Sarah Salah, the only woman to have taken part in the firefighting effort, will extinguish the well fire before an audience of Kuwaitis and foreign dignitaries.

But even as the last fires ebb, experts are still calculating the environmental impact of the Iraqi sabotage. Kuwait Oil Co. crews are expected to drain most of the crude-oil lakes. But much of the estimated 70 million barrels of oil now lying in the desert is likely to remain behind, some of it covered by ever shifting sands. Long after the firefighters return home, the scars of battle will remain seared on the desert kingdom. □