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## Coal Hard Cash

Alcoa Strikes Curious Water Deal With San Antonio

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**On a sunny afternoon** in 1987, Lee County rancher L.C. Hobbs drove out to check on a two-acre spread he had inherited from his mother in neighboring Milam County. With pockets of rich black soil and an ample supply of groundwater just below the surface, the land was once part of a tiny farming community called Gardener, back when cotton was still king in Milam County. Little more than a post office, a cotton gin, and a few family farms (one of them belonging to Hobbs' grandmother), the community had disappeared 50 years ago or more -- just dried up like a cotton boll in August, without leaving so much as a crumbling foundation or a graveyard to mark where it used to stand. Hobbs had eventually come to consider the land a scenic, if somewhat out-of-the-way, location for an RV park -- a plan that was about to hit a dead end. As Hobbs reached the turn off for County Road 313-C that afternoon, he found a brand-new gate across the road, blocking the only access to his land. "Property of the Aluminum Company of America," he read. "No Trespassing."

In its slow, 40-year march across the Milam County countryside, Alcoa's 14,000-acre lignite strip mine had finally reached Hobbs' backroads hideaway. The Fortune 100 multinational company had even acquired the mineral rights to the portion of the road that crossed its holdings, which meant that County Road 313-C's days were numbered. Hence the new gate, though some surveyor had erred in judging where Alcoa's holdings began. Hobbs, a World War II Navy veteran and lifelong resident of Milam and Lee counties, hitched his truck to the gate and jerked it out of the ground.

Twelve years later, Hobbs, clad in crisp blue overalls and walking with the aid of a plain wooden cane, describes how he ultimately lost the war with Alcoa. "Alcoa don't care who they step on or hurt," he says, walking between the two trailers -- only one of them occupied -- now parked on his land. After the mine passed within 100 yards of his property, the water table beneath it dropped over 400 feet. Hobbs was left with no road, no water, and -- after years of fighting the company before

the Railroad Commission and Milam County courts -- no recourse.

Hobbs' fate may soon be shared by thousands of others in Lee and Bastrop counties. Alcoa has teamed up with the city of San Antonio in a scheme to open a vast new mine near Elgin, about 20 miles from Austin, on land owned for decades by the Alamo City. If all goes as planned, Alcoa will get the lignite beneath the land to continue feeding its nearby aluminum smelter, and thirstily growing San Antonio will get the groundwater beneath the lignite -- as much as Alcoa needs to pump out to dig its enormous pits, plus a whole lot more. Enough, according to a coalition of farmers, ranchers, environmentalists, and suburban professionals who commute to Austin, to dry up thousands of wells in a huge swath from the Colorado River to the Brazos, endangering a whole way of life in the blackland prairie of Central Texas. Calling themselves Neighbors for Neighbors, the group plans to fight Alcoa's application for a mining permit.

For Austin, the plan could mean the death knell for one of the city's growing bedroom communities. And, at a time when Austin's air quality has just been declared officially unsafe by the Environmental Protection Agency, it could also mean 40 more years of aluminum smelting at one of the dirtiest plants in Texas, less than an hour's drive from the Capitol.

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## **The Mining Business**

Since the Fifties, Pennsylvania-based Alcoa has mined lignite, a low-grade, brown coal, in southwestern Milam County. The lignite is cheap fuel for Alcoa's plant, which sprawls over 7,000 acres adjoining the mine near the town of Rockdale. The Sandow Mine runs 24 hours a day, seven days a week, as does the aluminum smelter, the largest in North America. The mine has two draglines, enormous shovels 20 stories high, which can move 150 tons of earth with each scoop of their mammoth buckets.

Together they move a staggering amount of earth each year -- enough to fill the Panama Canal -- and uncover more than six million tons of coal in the process. Powered by four on-site power plants, the smelter annually consumes enough electricity to light the city of Austin. It is also one of the dirtiest plants in Texas. Of the four lignite-fired power plants at the smelter, three were built before passage of the 1971 Texas Clean Air Act, which mandated much stricter air-quality controls. Like dozens of older facilities across the state, Alcoa was "grandfathered," meaning the plant has never been required to comply with the 1971 law. All told, the plant generates about 100,000 tons of regulation-exempt pollution per year, making it the largest grandfathered polluter in the state. That total includes about 60,000 tons of

acid-rain-producing sulfur dioxide, a byproduct of burning lignite.

Few forces in nature can match the inertia of an advancing strip mine. The Texas Department of Transportation is not one of them. Although Alcoa could not legally cut off the only access to L.C. Hobbs' land, it did get the state's permission to "relocate" County Road 313-C. (Over the years, Alcoa has moved three county roads, and currently has permission to move five more. In 1994, rather than reduce emissions over a portion of FM 1786, the company purchased a section of the road and built a new one, a mile further from the plant.)

Today, the reinstalled gate stands about 100 feet beyond the entrance to Hobbs' land -- marking the end of the road, which has since been obliterated, along with everything else standing north of Hobbs' acreage. But what really left Hobbs' property virtually worthless was when the mining operation caused the water table to drop drastically. This was no accident. In order to remove the lignite, the underlying aquifer -- in this case the Simsboro Formation of the massive Carrizo-Wilcox Aquifer -- must be depressurized by pumping a huge volume of ground water out of the area to be mined. Under the mining permit issued by the Texas Railroad Commission, Alcoa is obligated to "mitigate" wells that go dry as a result of depressurization.

In this case, the company's logs indicate that Hobbs should have found water at 30 feet. But when he sunk a well two years ago, Hobbs hit nothing but dry sand. He drilled deeper, but when he eventually found water at 467 feet, it was so fouled by mineral deposits that it needed to be filtered to be useful. Hobbs asked the company for \$8,400 to pay for the drilling, plus \$7,400 for a filter system. Alcoa countered with an offer of \$5,000. Hobbs is preparing a lawsuit against the company.

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## **Into the Water Business**

But inexorable as it is, Alcoa's Rockdale operation is at a crossroads. The lignite seam that once seemed endless is almost exhausted; company officials estimate that perhaps five or six years of accessible reserves remain in the permitted mining area. The alternatives to lignite -- cleaner-burning but slightly more expensive western coal (mined chiefly in Montana and Wyoming) or Texas' own abundant supply of natural gas -- have been rejected by the company as too costly. Now Alcoa believes it has found a solution that will keep the smelter in business for another 30 years: a new 10,000-acre strip mine, with a haul road on company-owned land connecting the few miles from the new mine to the old. Alcoa plans to apply for a permit this winter and could begin mining as early as 2001. And

that's not the only venture the company has in mind.

Most of the land for the proposed new mine is owned by City Public Service (CPS), San Antonio's municipal power company, which acquired the lignite-rich land in the Seventies as a reserve power supply of its own. Today, San Antonio is much more interested in water than coal. The rapidly growing city is under a federal mandate to reduce its dependence on the Edwards Aquifer, the city's sole source of drinking water. The city currently uses about 175,000 acre-feet annually; by 2050, demand will be at least twice that amount.

Alcoa offered San Antonio a deal it couldn't refuse. As part of a series of contracts signed in January by Alcoa, CPS, and the San Antonio water utility (SAWS), San Antonio will pump water from both the old and the new mine areas -- possibly as much as 75,000 acre-feet, or about 25 billion gallons, per year -- for municipal use over the next four decades. The water deal is worth about \$5 million per year to Alcoa, and the contract obligates San Antonio to pay for the infrastructure necessary to build the water system. The city also agreed to assist Alcoa in obtaining the mining permit -- and in acquiring additional land the company may need, which could require San Antonio to extend its powers of eminent domain and condemnation some 100 miles from its city limits.

Moreover, the city is contractually obligated to mitigate wells damaged by the project, a potentially enormous burden over the life of the contract, though just how this obligation will be fulfilled remains unclear. If, as some ratepayers in San Antonio have already begun to complain, the deal seems to heavily favor Alcoa, that is because San Antonio sees the deal as a solution to its water troubles for a long time to come.

But at what cost to current users of the Carrizo-Wilcox Aquifer? The deep sand aquifer is the sole source of water for a number of non-profit water supply companies and thousands of private wells that provide water for most of the residents of rural Bastrop and Lee counties. Alcoa and SAWS insist that the aquifer has enough water for everyone -- according to a study commissioned by the interested parties. But John Burke, who manages Aqua Water Supply Corporation, a nonprofit water supply company in the area, disagrees. The Alcoa/SAWS study suggests that the volume of water Alcoa intends to pump could result in drawdown of the aquifer from 100 to 300 feet in a 1,400-square-mile area stretching from the Colorado River to the Brazos. Its most likely scenario results in roughly twice the normal recharge amount being sucked out annually, from an aquifer known for its extremely slow recharge. "If you went down to San Antonio and the Edwards Aquifer and said I'm gonna draw down 100 feet over 1,400 square miles, those people would be comin' to your funeral," Burke says, "because someone would

hang you." Alcoa, meanwhile, has been aggressively purchasing additional land adjacent to the San Antonio tracts, and calling in mineral rights acquired, in some cases, more than 25 years ago. Dozens of landowners are being pressured to sell, and hundreds more will find their property bordered by a moonscape if the mining permit is approved. Bastrop and Lee counties are known for the multitude of seeps and springs that support a diverse ecosystem, and the area is home to the endangered Houston Toad, which relies on surface moisture for survival. Alcoa has made no attempt to predict the project's impact on surface water flows, including the Colorado and Brazos rivers, which the study suggests might be impacted by heavy groundwater pumping.

Bastrop and Lee counties are officially opposed to the plan, along with the city of Elgin, and a long list of area businesses. But in Milam County, where almost everyone in Rockdale either directly or indirectly relies on Alcoa for a living, there is little opposition to the plan. The mine and smelter are the biggest union employers in Central Texas, with a combined total of 1,200 employees. The water-for-coal deal, then, becomes not only a referendum on water law, but also on the fate of a region being pulled between conflicting futures: rural, industrial, and suburban.

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## **Mine All Mine**

With a dragline stationed at each end like a slowly advancing siege engine, the Sandow mine is a two-front assault on the rolling Central Texas countryside. The lignite outcrop, where the coal seam comes right to the surface, runs in a southwesterly direction from a point about five to six miles east of the smelter site, past the smelter itself, and on south into Lee County, for a total length of about 15 miles. Over the last 50 years, the mine has followed the "strike" of the coal, with pit after pit dug parallel to the outcrop, following the lignite seam southeast as it descends at a gradual slant toward the Gulf, plunging deeper below the surface as the lignite formation falls away from the outcrop. About 10 years ago, as the pits began to get considerably deeper, Alcoa began pumping groundwater out of the Simsboro to prevent artesian pressure from blowing out the bottom of the mine. Alcoa currently pumps about 30,000 acre-feet of aquifer water per year, which it discharges into Lake Somerville.

Every Wednesday and Saturday afternoon, public tours of the Sandow mine begin at the Rockdale Chamber of Commerce. If you're with the press, you can get the deluxe version, which includes a trip down into the pit in a pickup driven by Barry Denton, business manager for the mine. "The biggest hazard in the pit is the guy in the pickup," Denton says as we descend down an extremely rough grade of packed

clay between two steep walls of freshly hacked, remarkably homogeneous gray dirt. On cue, a clipped twang crackles from the C.B. radio at Denton's knee: "Watch 'at pickup." Rounding a bend into the pit itself, the walls now 50 feet high on either side, we hit a traffic jam. A dumptruck the size of a fire station stops abruptly and drops its entire load of clay in one rapid motion, directly between us and an oncoming coal hauler. It's quick and dirty road maintenance, Sandow style. Denton pulls the oversize, four-wheel drive pickup -- which now seems frighteningly puny -- over into the ditch to wait for the logjam to clear up, which doesn't take long. An agile bulldozer whips around the end-dump and rams into the 100-ton mound of earth, clearing off two-thirds of it in one pass, like a pushbroom moving through sawdust. No sooner is the clay in place than the 160-ton-capacity coal hauler -- the biggest truck in the Sandow fleet -- comes straining up the hill, fully loaded with lignite, over the freshly repaired road. By the time the hauler reaches us, the dozer has done another 180-degree turn, easing up behind the much larger truck to give it a push from the rear. Denton clearly enjoys watching reporters' eyes widen on this part of the tour, and it's hard not to think of Tonka toys and sandboxes.

From there it's a short ride down to the bottom of the pit, which is perhaps 300 yards long by 100 yards wide. The floor is coal. An enormous electric shovel, smaller cousin to the colossal dragline, digs away at the 10-foot-thick seam, loading coal haulers, which come and go like worker ants. Looming into sight over the 100-foot pit wall is the long boom of the dragline, which sits (idled today for maintenance) on the edge of a second freshly dug pit, about an eighth of a mile further down. Sometime this winter, the small mountain of earth removed from that pit will fill the one we are currently standing in.

After we climb back out of the pit, Denton drives us on a tour of reclaimed mine land. Under the Surface Mining Control and Reclamation Act, which Congress passed in 1977, Alcoa is required to return mined land to its "approximate original contour." Backfilling and grading must begin no later than six months after the coal is removed. As we drive through the site, Denton points out sections of land in various stages of reclamation. Land reclaimed two years earlier is runneled by rainfall and unnaturally sparse. But after five or 10 years, it looks like fairly normal Central Texas pasture land.

Federal law also requires that reclaimed land be left in a state at least as productive as it was before mining. But comparing "productivity" before and after mining is an inexact science -- one that, according to some critics, asks the wrong questions. None of the land in the Sandow Mine was classified as "prime farmland" before the area was mined. "It was all just scrub," according to Denton. Now the land is planted almost exclusively with coastal bermuda, although Denton talks about the

importance of diversity in replanting. The grass is harvested twice annually for hay, which is then used as a mulch in reclaiming new areas.

"What you get is a monoculture," according to Tom Arsuffi, professor of biology at Southwest Texas State University. "Those types of habitats don't do a lot for biodiversity: insects, mammals, and birds."

There had been, of course, mature trees in the "scrub," or post oak savannah, as biologists call it. These are impossible to replace, though small stands of immature trees, many of them planted by Boy Scouts earning nature badges, divide the pastures here and there. Just beyond the far western edge of the mine, forlorn heaps of bulldozed trees dot the landscape in the area slated for "overburden" removal in the near future.

Denton says the company has tried unsuccessfully to work with salvage firms to remove the mature lumber, but generally the trees just end up being burned or scooped up in the dragline's big bucket, to be thrown into the pits and buried.

In its pitch to Bastrop County residents, Alcoa brags about the awards it has won for reclamation in recent years. But the Texas Railroad Commission also cited the mine for 26 violations between 1992 and 1997, and Alcoa has yet to reclaim hundreds of acres mined before the enactment of the 1977 law. Much of the land mined before 1977 has been reclaimed under the auspices of the Railroad Commission, using proceeds from a tax levied on the mining industry for abandoned mine reclamation. But a significant portion has yet to be restored.

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## **Dubious Distinction**

Tapping a new lignite source will allow Alcoa to continue to operate as one of the biggest sources of air pollution in Texas well into the next century. Alcoa is not the only industrial user of lignite in Texas. Texas Utilities mines and burns lignite at its North Texas Big Brown plant. Big Brown was also grandfathered for decades, but whereas T.U. will have to substantially reduce emissions under provisions in the new utility deregulation bill, Alcoa won't have to clean up its act any time soon.

The company stepped forward late in the last legislative session, promising to apply for a permit under the new voluntary emissions reduction program promoted by Governor George W. Bush, and will face hefty fines under the new legislation if it doesn't participate in the program. But the terms of the permit are very lax, allowing the company to use pollution-control technology criteria a decade old, under a standard much hazier and more difficult to enforce than the criteria applied to regular permit holders. And the permit contains a key loophole that is absolutely

crucial to Alcoa. At the discretion of the Texas Natural Resource Conservation Commission (TNRCC), companies may forego reductions in one pollutant in exchange for increased reductions in another. This will allow Alcoa to continue to evade restrictions on sulfur dioxide. Alcoa's three grandfathered power plants put out a combined total of 60,000 tons of sulfur dioxide annually. According to Mark Bryson, Alcoa's environmental manager, the company has no intention of lowering that amount to obtain the voluntary permit. Bryson maintains the company's priorities should be on reducing smog-producing contaminants; although no official plan has been submitted to the TNRCC, Bryson said the company would "significantly lower" emissions of nitrogen oxide and make "some reduction" in particulate matter and volatile organic compounds.

(The company paid dearly for the loophole in the governor's grandfather law. Alcoa's law firm, Vinson & Elkins, poured \$300,000 into Bush's presidential campaign during the legislative session. Under normal circumstances -- that is, if Bush hadn't been running for president -- donations to an elected official during the legislative session would be illegal.)

It isn't as though Alcoa's emissions have been completely unregulated over the years, Bryson is quick to point out. Since the Seventies, the company has had to adhere to a sulfur dioxide limit found in the TNRCC rules (and in the public health statutes). But again, it is not the same limit required of other companies. And once again, it was Vinson & Elkins that helped Alcoa get a special dispensation from the agency when the rules were revised in the early Seventies. Whereas all other companies must adhere to a standard of three pounds of sulfur dioxide per million British thermal units produced, the code contains a special exception for "fossil-fuel fired steam generators located in Milam County which began operation prior to 1955." Only one source meets that description: Alcoa's Rockdale smelter.

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## **Hydro Tropic**

Texas remains one of the few states in the union with no statewide regulation of groundwater. The Legislature was finally forced to act in response to the drought of 1996, which focused legislators' attention on the sorry state of water regulation in Texas: surface water rights were over-allocated, estimated flow rates were inaccurate, and the extent and quality of groundwater reserves were largely unknown. In one of elder statesman Bob Bullock's final major campaigns, the state took a few tentative steps toward a rational water policy in 1997, with legislation encouraging the formation of water conservation districts authorized to regulate pumping and water transfers. But after two years under the new law, conservation districts are still few and far between, and the "rule of capture" -- he who has the



biggest straw can suck the most water, essentially without limits -- still applies in most areas of the state. The Texas Supreme Court recently rejected a challenge to the law by two East Texas families, who sued the Ozarka Spring Water Company for pumping so much water -- 90,000 gallons per day beginning in 1996 -- that nearby wells began to dry up. The court cited the need to allow the 1997 law time to take effect, but the fact that the justices even agreed to hear the case signaled that the inevitable day of reckoning lies ahead.

All major Texas cities (including Austin; see "Council Watch") are aggressively searching for alternative water sources, but particularly desperate are those, like San Antonio, that rely entirely on groundwater. To complete the deal between San Antonio and Alcoa, three contracts were signed. Alcoa obtained mineral rights to the 14,000 acres owned or leased by City Public Service in Bastrop and Lee counties. In a separate contract, Alcoa agreed to provide the San Antonio Water System 40,000 to 60,000 acre-feet of water per year from the Sandow mine. CPS also assigned the water rights on its property to SAWS, which could yield as much as 15,000 more acre-feet per year. Thus San Antonio -- which now uses 175,000 acre-feet per year -- could receive as much as 75,000 acre-feet per year under the various contracts. Less than half of that potential is water that will be made available because of mine depressurization; the remainder will require extra pumping beyond what is needed for mining. In any case, mining will cease in the Sandow area long before the 40-year term of the water delivery contract expires. Alcoa, in other words, is entering the water marketing business.

The question of whether or not water is pumped for depressurization is crucial. Only water pumped for mining purposes falls under the regulation of the Railroad Commission, which requires mitigation of damaged wells. Water pumped beyond mining requirements is essentially unregulated, meaning that well owners who suffer a loss as a result of this pumping have no recourse to the Railroad Commission. Under the terms of SAWS' contract with Alcoa, the water utility is obligated to pay for mitigation of wells damaged as a result of pumping to fulfill San Antonio's needs. But well owners won't have an ostensibly neutral third party, such as the Railroad Commission, to guarantee their rights. They will instead have to trust Alcoa to persuade SAWS to comply with the terms of the contract and pay for mitigation of damaged wells.

The timing of Alcoa's leap into the water business was auspicious, to say the least. Alcoa and SAWS announced the inking of their new contract in January, just a few days before the legislative session was to begin. Rebecca Quintanilla, vice president for planning at SAWS, maintains that negotiations with Alcoa had begun over two years ago. But according to Larry Hoffmann, who serves on the SAWS citizen

advisory panel, the public was kept in the dark about the contract negotiations.

Panel members were allowed to review the several hundred pages of contracts only a few days before the SAWS board voted to approve them. And SAWS signed off on the deal some three months before a preliminary feasibility study was completed.

Why the rush? In testimony before the House Natural Resources Committee, Bastrop County representative Robby Cook suggested it might have had something to do with the bill his staff had been putting together in the interim: HB 2237, creating the Lost Pines Water Conservation District. Lawmakers are traditionally reluctant to pass bills that impair existing contracts. Thus, sealing the deal with Alcoa offered San Antonio protection against pumping restrictions anticipated in Cook's bill.

When such restrictions did materialize in the bill, San Antonio representatives Robert Puente and John Shields argued that Alcoa's water contract should be grandfathered. Eventually, Alcoa and SAWS agreed to a limit of 40,000 acre-feet a year, but that compromise was deceptive. Because the Lost Pines District only encompasses Bastrop and Lee counties, water pumped in Milam County would not count against the cap. The point became moot late in the session, when Senate Natural Resources Chairman Buster Brown killed all 13 groundwater district bills on file, substituting instead temporary districts with limited powers and two-year life-spans. Brown claimed the process was unfolding too haphazardly. Water experts anticipate a mad scramble to get similar contracts in place before permanent districts are established in much of the state, most likely during the next session.

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## **Global and Local**

Based in Pittsburgh, Pennsylvania, Alcoa does much of its business overseas these days, with roughly twice as many employees abroad as in the U.S. Most of its smelters are fueled by hydroelectric power; the Rockdale plant is something of an anachronism. According to mine manager Tommy Hodges, Pittsburgh expects Rockdale to actually lower its fuel costs to stay competitive in the international aluminum market. Cheap fuel or no, the fate of the Rockdale plant is ultimately in the hands of the commodities market, much more than of state regulatory agencies or angry ranchers. It's the price of aluminum that determines when potlines are idle at Rockdale and workers stay home.

The current controversy comes at a time of prosperity for the company and its shareholders. Just last year, Alcoa acquired Alumax, an international competitor, for \$3.8 billion. Company officials maintain that keeping fuel costs low allows them to

afford such expansion. But can Central Texas continue to afford Alcoa? Hodges estimates the company has acquired roughly one-third of the 3,000 additional acres needed for "optimization" of the new mining area. Unlike the CPS land, much of that acreage is family farms, often held for generations by the same clan. Alcoa agents work seven days a week persuading people to sell out. As they go, so goes a centuries-old land ethic, to be replaced by a new variety of stewardship, one with a different concept of land management and a strange new language to describe it: one of scrub, overburden, and shareholder equity. end story

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Nate Blakeslee is a staff writer for *The Texas Observer*, where a version of this story first appeared.

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