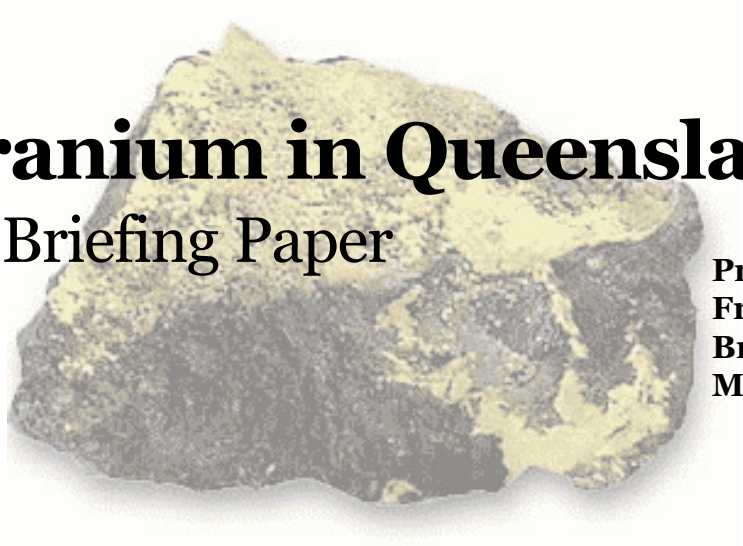
Uranium in Queensland

Briefing Paper



Prepared by
Friends of the Earth
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Contents:

Compiled May 2006
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Executive Summary

Uranium prospecting has continued in Queensland despite a statewide ban since 1989. In recent months the stock value of companies owning uranium deposits in Queensland has escalated, in the wake of the Federal government deal to sell uranium to China. Speculators are saying that either the Labor party will reverse the ban, or the Federal government will intervene using constitutional powers to override the state government, to permit uranium mining.

- Uranium mining is detrimental to the environment: it uses masses of water, and tailings dams in Australia and elsewhere do contaminate groundwater and endanger wildlife;
- Uranium mining creates intractable waste, both at the mine site and as an end product of it's uses – a legacy of waste that will affect many future generations and contaminate those that come into contact with it;
- Uranium mining will not alleviate greenhouse gas emissions by its use in nuclear power plants;
- Uranium mining is detrimental to the rights of indigenous people – basic services should be met by the state, not by the granting of mining leases on indigenous land for royalties;
- Uranium mining is inextricably linked to weapons – problems with safeguards aside, exporting uranium to nuclear weapons states for nuclear power plants simply frees up other uranium sources for weapons manufacture;
- Uranium mining is detrimental to the safety of workers – worldwide research links uranium dust exposure to high rates of cancer and lung problems;
- Uranium mining is opposed by many MPs and the majority of Australian voters – permitting uranium mining will have serious electoral consequences for the Labor government in Qld and the Federal opposition. The Queensland Greens have already withdrawn their preferences from any candidate who supports uranium mining;
- Uranium mining has serious technological and procedural problems – including lax compliance to environmental and health and safety standards ;
- Uranium mining will cost the state economically: clean-up costs have never been entirely met by the mining companies - in the 2006 Federal budget, $7m was allocated to continuing the clean up of long defunct uranium mines in the NT;
- Uranium exploration is being carried out by numerous companies in Queensland, despite the state ban on uranium mining, some of which have been associated with dubious business practices.
- The permission of uranium exploration raises questions about the legality of that practice, the state governments' commitment to the no mines policy, and highlights flaws in the permit system.
- A great opportunity now exists for Queensland to develop further the renewable energy sector which is growing at a rate of 30% a year. We have the technology and the know-how to do this today, and see Queensland become a world leader in clean energy provision.

1. Introduction

Uranium prospecting has continued in Queensland despite a statewide ban since 1989. In recent months the stock value of companies owning uranium deposits in Queensland has escalated, in the wake of the Federal government deal to sell uranium to China. Speculators are saying that either the Labor party will reverse the ban, or the Federal government will intervene using constitutional powers to override the state government, to permit uranium mining.

2. Uranium – An outline of the issues

Queenslanders have a long standing opposition to uranium mining. We opposed it in the 70's when the then Bjelke-Petersen government changed laws to permit uranium mining and exploration. In May 1976 one of the first anti uranium mining protests in Australia took place in Townsville, when Australian Railway Union Workers refused to load supplies for the Mary Kathleen Uranium Mine.

Labor was voted into power in 1989, with the mandate to make Queensland a nuclear free state.

Mary Kathleen was Queensland's only operating uranium mine until 1982, when it closed, it's reserves depleted. In 1989 the Queensland Labor government placed a ban on uranium mining.

Uranium prospecting continues nonetheless, with current Minister for Natural Resources and Mines, Henry Palaszczuk saying companies currently exploring for uranium in Queensland do not have permits for uranium exploration *per se*: permits were issued either for coal or for other minerals. Despite this disclaimer, the Department continues to aid, report and comment on uranium exploration in Queensland suggesting there is a not-so-hidden agenda of support within the department.

Indeed, given that Exploration Permits for Minerals specify the permitted minerals to be explored for, the question is raised as to whether companies engaging in uranium exploration in Queensland are breaking the law. If so, then they are doing it with the implicit permission of the Queensland government despite the ban on mining uranium.

2.1 Environmental issues

Uranium is mined using one of three techniques: surface (open pit, as used at Mary Kathleen), underground (as used at Olympic Dam), or solution (In-situ leach, as used at Beverley) mining. There is a ore concentration value below which it is uneconomically viable to extract the uranium, depending on the site. However, a U.S. survey conducted in 1986 indicated that low-grade cut-off values were between 0.01 to 0.3%. This means all Queensland uranium deposits are low-grade.

2.1.1 Water

Uranium mining uses huge quantities of water. Water is needed for separating the uranium from the ore, for dust control and for covering the radioactive sludge. Olympic Dam in South Australia pumps 33 million litres a day from the Great Artesian Basin and is licensed to use 42m litres a day. In-situ leach mining, such as is used at Beverley mine in South Australia acid is injected into the ore body on site and it's contamination of the groundwater almost inevitable.

The water is not recoverable, as it a toxic mixture of uranium, acid, copper and ammonium a used in the processing.

The radioactive and toxic water can leak, spill, or overflow into the local environment. The danger to local fresh water and ground water continues long after the productive life of the mine is over.

In the Navajo Nation in New Mexico, U.S.A., it is estimated that 20% of the local drinking groundwater is still being contaminated by uranium mines closed in the 70s.

2.1.2 Waste and pollution

Once used, the water is stored in huge tailings dams that have a history of leakages, spills and pollution into the natural environment.

"At the Beverley mine in SA, an in-situ leaching process is used which involves dumping radioactive and acidic waste water directly into the underlying aquifer." Beverley had a total of spills of radioactive liquid in a two year period to 2002. Three of them were more than 2,000 litres. (The Age, Jan 14, 2002)

"The Olympic Dam (Roxby Downs) mine in S.A. has produced a radioactive tailings dump of 70 million tonnes, growing at 10 million tonnes annually with no plans for its long-term management" (2006: FoEA. The Push to Expand Uranium Mining).

Olympic Dam has regular leaks and spills from it's tailing dams including a massive spill of over 650,000 litres of radioactive and toxic water in 2003." According to a 1997 Senate inquiry, there was a major leak of water from the Olympic Dam tailings impoundment, announced by the company in 1994.

"The Ranger mine in the NT has generated over 30 million tonnes of tailings waste. In 2005, ERA was found guilty and fined $150,000 in relation to a contamination incident in March 2004 when about 150 people were exposed to drinking water containing uranium levels 400 times greater than the maximum Australian safety standard. Twenty-eight mine workers suffered adverse health effects including vomiting and skin irritation as a result of the exposure. A further charge related to contaminated vehicles leaving the mine site in breach of decontamination and clearance procedures – causing a serious and preventable radiation exposure to a local mechanic and his children.

The environmental problems don't end at the mine sites. Australian uranium is converted into high-level nuclear waste in nuclear power reactors around the world, yet there is still not a single repository anywhere in the world for the disposal of high-level nuclear waste. There is increasing talk of Australia becoming the world's nuclear waste dump." (2006: FoEA. The Push to Expand Uranium Mining).

2.1.3 Wildlife

Reports of regular animal and water bird death's also emanate from both Ranger and Olympic Dam mines. In one incident, more than 100 birds were found dead over four days in late December 2004 at Olympic Dam. Water and wading birds are particularly susceptible to tailings dams. Other birds at risk include raptors which are attracted to carrion on tailings dams.

2.1.4 Greenhouse

Contrary to the nuclear-industry's popularised conception, uranium mining actually contributes to greenhouse gas emissions. Olympic Dam is the biggest electricity user and hence the biggest GHG emitter in South Australia. The processing and transport of yellowcake is all powered by fossil fuels.

The argument that uranium is needed for nuclear power as a solution to climate change is also fallacious and debunked at length in Dr Jim Green's report, "Nuclear Power No Solution to Climate Change"2005. In short, nuclear power is too slow, too expensive and to dangerous, and will only deliver at most a 5% reduction in emissions. From a uranium standpoint the report shows that the high grade uranium reserves would last about 4 years if nuclear power were widely embraced.

2.2 Social issues

2.2.1 Indigenous

Uranium mining occurs on indigenous lands over which sovereignty was never ceded.

"The Carpentaria Land Council has declared its opposition to uranium mining in Queensland's gulf country with its spokesperson Murandoo Yanner saying on August 8 that local people would not shy way from taking direct action, as they had in their fight against Pasminco Century's zinc mine."

"I would take far greater steps", he stated. "That's what I'm warning John Howard and anyone else. The leather gloves were used on Century. We're using knuckle-dusters when it comes to uranium mining. We will not take a backward step."

From Green Left Weekly, August 17, 2005.

"Racism in the uranium mining industry in Australia typically involves some or all of the following tactics: ignoring the concerns of Traditional Owners insofar as the legal and political circumstances permit; divide-and-rule tactics; bribery; humbugging Traditional Owners – exerting persistent, unwanted pressure until the mining company gets what it wants; providing Traditional Owners with false or misleading information; and threats, most commonly legal threats.

Mining company ERA and the Howard government were determined to override the opposition of the Mirarr Traditional Owners to the Jabiluka uranium mine in the NT, but the Mirarr prevailed. The Jabiluka mine site has been rehabilitated and the Mirarr have a veto over any future development of the mine. However, ERA still hopes to mine Jabiluka at some stage in the future, and it still operates the Ranger uranium mine near Jabiluka.

Heathgate Resources, owned by General Atomics, succeeded in imposing the Beverley uranium mine on the Adnyamathanha people in north-east SA in the late 1990s. The company negotiated with a small number of Native Title claimants, but did not recognise the will of the community as a whole. This divide-and-rule strategy, coupled with the joint might of industry and government, resulted in inadequate and selective consultation with the Adnyamathanha people.

The racism associated with the Olympic Dam uranium mine in South Australia is enshrined in legislation. WMC Resources was granted completely unjustifiable legal privileges under the SA Roxby Indenture Act. This legislation overrides the Aboriginal Heritage Act, the Environment Protection Act, the Water Resources Act and the Freedom of Information Act. The new mine owner, BHP Billiton, refuses to relinquish these legal privileges." (2006: FoEA. The Push to Expand Uranium Mining)

During the development of Ben Lomond, Minatome destroyed several vital and ancient Aboriginal sites, "including one possibly some 4000 years old, "considered to be one of the most significant in North Queensland". This site was bulldozed by the company to make way for an experimental evaporation pond." (SEA-US).

Lastly, uranium mining creates divisions within Aboriginal communities. Royalty monies and promised developments by mining companies lure impoverished indigenous communities to agree to mining in order to get basic services most of us take for granted, like roads, public pools, schools and hospitals.

2.2.2 Weapons

Uranium mining is inseparable from nuclear weapons proliferation.

"Four or five countries have used supposedly 'peaceful' nuclear facilities and materials to build arsenals of nuclear weapons - India, Israel, Pakistan, South Africa, and possibly North Korea.

Australia's uranium exports have resulted in the production of over 80 tonnes of plutonium - enough to build 8,000 nuclear weapons. Yet it is widely acknowledged that the 'safeguards' system is fundamentally flawed and limited - in fact the head of the International Atomic Energy Agency has described the IAEA's safeguards inspection system as "fairly limited". Sales of Australian 'safeguarded' uranium, will free up the uranium reserves of nuclear weapons States for their nuclear weapons manufacturing processes." (2006: FoEA. The Push to Expand Uranium Mining)

2.2.3 Occupational health and safety

Uranium mining put workers at additional risk to regular mining including cancer.

"Uranium mine workers are often told that the radiation doses they receive are below or close to background levels and below permissible limits - the implication being that the radiation doses are 'safe'. However, the doses received at the mine site are additional to background radiation so workers are at additional risk of fatal cancers.

International cancer incidence and mortality data demonstrate statistically significant links between radiation and all solid tumors as a group, as well as for cancers of the stomach, colon, liver, lung, breast, ovary, bladder, thyroid, and for non-melanoma skin cancers and most types of leukemia.

Over the years the permitted levels of radiation exposure for workers and the public have dropped dramatically as research, particularly from radiation biologists, indicates harmful effects still exist at much lower exposure levels. For workers, the permitted dose was set at 500 millisieverts per year in 1934, 150 mSv in 1950, 50 mSv in 1956, and 20 mSv (averaged over five years) in 1991. The limit for members of the public is just 1 mSv.

Based on previous experience, further reductions in permitted doses can be expected. In 2003, the European Committee on Radiation Risk, comprising 30 independent scientists, released a report which concluded that the total permissible dose to members of the public from all human practices should be reduced to no more than 0.1 mSv (a ten-fold reduction), with a limit of 5 mSv for nuclear workers (a four-fold reduction)." (2006: FoEA. The Push to Expand Uranium Mining)

In March 2004 workers at ERA's Ranger mine in the Northern Territory were accidentally poisoned with radioactive water, the extent of which they only discovered after reading the newspapers, not from their employers. Workers drank and bathed in the radioactive water. A Commonwealth-appointed scientist Arthur Johnston commented to media that ERA had become complacent about radiation dangers at the Ranger mine and did not provide enough protection for workers.

2.3 Political issues

Various ministers and others in Queensland and Nationally have made statements about their affiliation on this issue. Status as of April 25, 2006.

Australian Workers Union head, Bill Ludwig: "Well, we're doing it now, aren't we? We're digging up uranium now in Australia. So does that, you know, another mine - does that say it's more risky? I don't think so. Another two mines? I don't think so" (ABC April 2006).

Australian Manufacturing Workers' Union National Secretary, Doug Cameron:
"Nothing has changed since the party adopted the last uranium policy, and policy should not change" (ABC April 2006).

Australian Manufacturing Workers' Union (AMWU) state secretary Andrew Dettmer:
"I think there are a significant number of Labor members and supporters who do not want to see any expansion in uranium mining," Mr Dettmer said."If the Labor Party were to change the policy, we would be ceding ground to the Greens we could ill afford to lose."He said comments by Mr Ludwig to relax uranium mining had caused a"wave of revulsion" in the party" (Rehame April 2006).

QLD Labor MP, Member for Hervey Bay, Andrew McNamara:
"Mr McNamara says Queensland has an obligation to be part of a global energy solution, with an estimated $3 billion to $4 billion in uranium deposits.
"...it's important that we, as a responsible part of the world's energy supply industry, consider the needs of energy users" (ABC April 2006).

QLD Speaker and Member for Mt Isa, Tony McGrady:
"...whose western Queensland electorate includes some of the country's richest uranium deposits, has long been opposed to uranium mining but now he says it is time to debate the issue" (ABC October 2005).

QLD Lawrence Springborg, QLD Opposition Leader:
"The Queensland Coalition openly declares its support for uranium mining" (April 2006. springborg.com).

QLD Liberal Senators Russell Trood, Brett Mason and George Brandis: went to Summit Resources' Valhalla uranium deposit near Mount Isa on March 15. "Senator Trood says mining uranium at Valhalla and other sites would benefit not only the region, but the whole of Australia" (ABC March 2006).

QLD Nationals MP, Member for Charters Towers, Shane Knuth:
"I will not support a uranium mine in my electorate that will have the potential of contaminating our town's water supply," Mr Knuth said.
"Charters Towers would lose out on the jobs but cop the contamination. I am not saying I don't support uranium mining but I have concerns about a mine in my electorate" (Sunday Mail 2006).

QLD Labor Premier, Peter Beattie:
"Mr Beattie last week admitted he had struck uranium off the agenda for Labor's state conference in June, deferring the debate to the party's national conference in April 2007..."No decision will be made at caucus, no decision will be made at our state conference, it will be made at the national conference," he said" (Courier Mail April 2006).

QLD Greens, Juanita Wheeler Spokesperson, Queensland Greens
National Convenor, Australian Greens:
"All state members of parliament, and political candidates must declare their positions on uranium mining to the people of their electorates before the next state election, according to the Queensland Greens" (Greens 2006)

QLD Labor MP, Member For Indooropilly, Ronan Lee:
"He said nuclear power "can never be deemed a safe practice and uranium should be simply left in the ground . . . the risk overwhelmingly outweighs the apparent benefits" (Courier Mail April 2006)

QLD, spokesperson for the Carpentaria Land Council, Murandoo Yanner:
" . . . We're using knuckle-dusters when it comes to uranium mining. We will not take a backward step" (Green Left Weekly August 2005).

2.4 Technological & Procedural issues

The uranium mining industry has not been reliable in complying to safety and environmental standards in the past, and has been found on more than one occasion to be inadequately resourced to remediate mine sites.

"The 2003 Senate Inquiry into the regulation of uranium mining in Australia reported "a pattern of under-performance and non-compliance", it identified "many gaps in knowledge and found an absence of reliable data on which to measure the extent of contamination or its impact on the environment", and it concluded that changes were necessary "in order to protect the environment and its inhabitants from serious or irreversible damage." (2006: FoEA. The Push to Expand Uranium Mining)

Ironically, in February 2005, Olympic Dam was awarded ISO 14001 certification for the environmental management of the Olympic Dam. In April 2005 there was another spill.
Former uranium mines in the Northern Territory have become an ongoing source of remidation problems, with Narbalek

being found to be “far from ideal” by the chief supervising scientist in 2003, and old tailings from Kakadu’s Rockhole mine found washed into local rivers and onto public roads in 2000.

When Mary Kathleen mine in Queensland closed in 1982, shortages in their remediation fund meant that they took shortcuts when sealing in tailings. Instead of using clay, they used a combination of clay and radioactive rock from the mine site itself.

State Member for Mt Isa, Tony McGrady expressed concern in 2004 that people were swimming in Mary Kathleen tailings dam.

2.5 Economic Issues

The biggest force behind the nuclear push is the potential money to be made from uranium mining. While speculation is high and mining companies are seeing record share prices, we need to bear in mind that speculation is not based on reality and that economic analysts have called to uranium bubble “ridiculous”. In addition, uranium mining has extra costs associated with it regarding security, safety and remediation of mining sites, and many external costs that are borne by the community amounting to indirect subsidies to the mining companies.

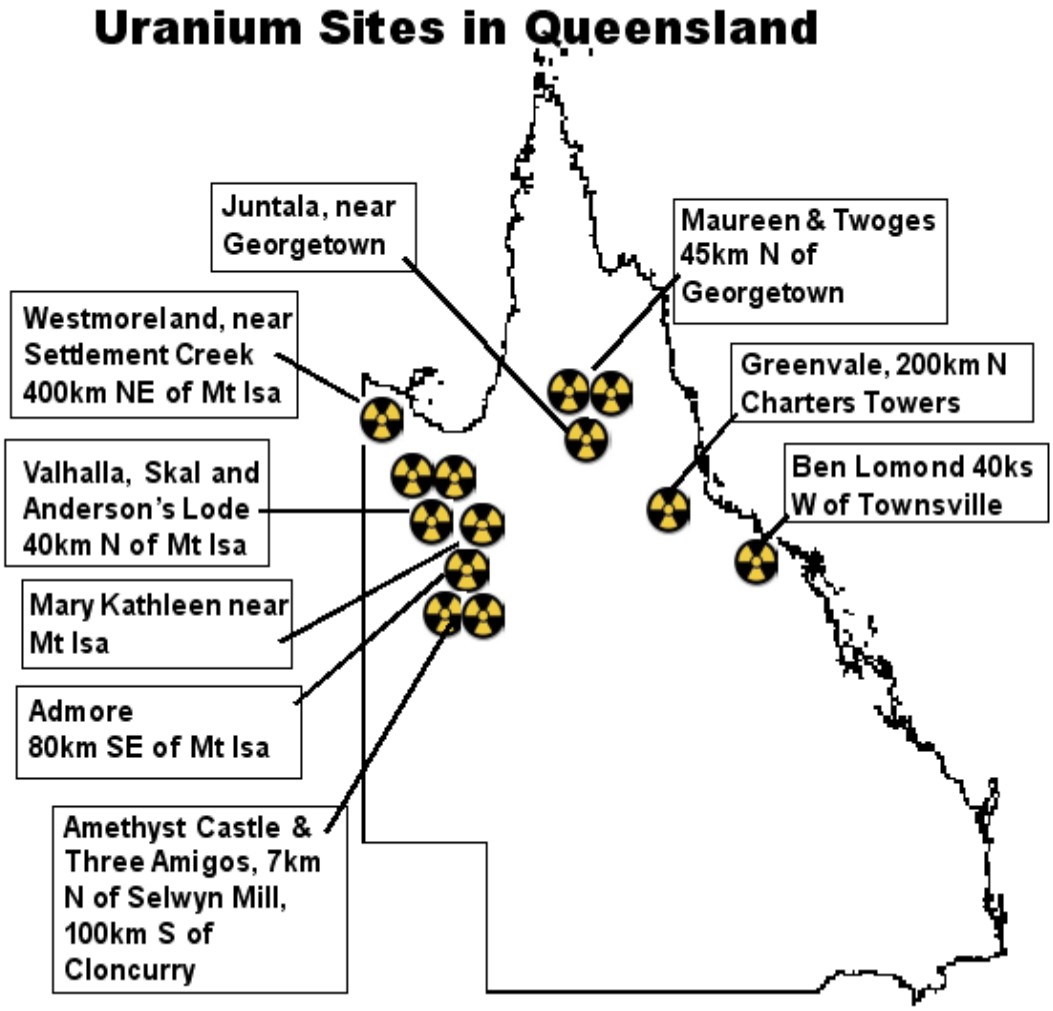
The cost of remediation of mine sites is an added expense in factoring the costs and benefits of mining. In July 2005 Energy Resources Australia (ERA), operators of the NT’s Ranger mine, revealed in their half-yearly report that they had put aside just $41m to remediate the site which is surrounded by Kakadu National Park. ERA say it will cost closer to $176m to clean up the site when the mine closes in 2008, the rest may have to be met by the state.

Even if currently considered best-practice clean up is followed the external costs of the mine are still borne not by the miners, but by the local community, the state and taxpayers. There are numerous examples of unscrupulous miners who have evaded the costs of their contamination. For example, the U.S worst ever cyanide spill in Summitville, Colorado, that has cost about $20m to clean up so far, is associated with one of the company executives now prospecting for uranium in Queensland. Indeed, this was one of the fears of campaigners against Ben Lomond mine site near Townsville, who said, “There is no way of enforcing the responsibility of the mining company after the mine has closed. After the ten-year life of the mine, when profits and uranium will have been sent to France, Minatome will have no further interest in the abandoned mine or the people living in the area affected by it”. When the state has to foot the clean-up bill, it should be considered an indirect subsidy and figured into any economic calculations. Indeed, the government is still footing the bill for cleaning up defunct uranium mines in the Northern Territory, devoting $7 million to it in the 2006 federal budget.

Michael Krockenberger, former ACF campaigner puts it succinctly: “It is worth remembering Rum Jungle, the uranium mine south of Darwin which operated in the 1950s and 60s. The clean-up of radioactive contamination cost the Australian government far more than it ever earned from the mine”.

In any case, profits from uranium mining cannot compare with the consistent growth of demand and profit from wind and other renewable sources. In the last twenty years, although production has increased demand for uranium has on average fallen. Yet in 2004 global investment in renewable energy set a new record of $30 billion in 2004, and wind energy demand increases at a rate of 30% per year.

The perceived economic benefits of uranium mining are inherently short-term, as estimations of current uranium reserves are generally understood to last at most 50 years. That’s at best 50 years of profit, with 250 million years of waste storage costs and mine remediation costs.



3. Uranium exploration sites in Queensland

This section is probably not complete: information about uranium exploration in Queensland is difficult to uncover except through company media releases, probably because it is illegal. In addition, new companies are getting involved daily, riding the speculation boom in uranium.

Bear in mind that the estimated load of ore has been made by the mining companies themselves and should be considered as a high estimate designed to inflate share prices and investment.

3.1 Ben Lomond

Location: 40ks W of Townsville
Indigenous locals: Kalkadoon
U ore load: about 0.21% U308
Estimated load: between 4760 - 6800 tonnes
Owned by: Mega Uranium Ltd http://www.megauranium.com/ formerly Maple Minerals Corp.
Address:

Mega Uranium Ltd. The Exchange Tower
130 King Street West Suite 2810
Toronto, ON Canada
M5X 1A9
Phone 416.643.7630
Fax 416.941.1090
CEO: Sheldon Inwentash

History: Ben Lomond's development in the late 70s hinged around a uranium processing pant to be built in Townsville. Permit for mining was given in 1980 before an EIS was completed (by dropping environmental requirements from the rules, according to SEA-US), and subverting consultation with the locals. Public opposition grew, nonetheless. In mid 1998, Labour announced that they would stop the mine if elected to power, which they did.

Environmental issues:
Ben Lomond is in the Ross River catchment. It is 40kms from Townsville.
SEA-US say the mine had radiation issues even at exploration stage," These were summarised by the Queensland Campaign Against Nuclear Power (CANP):

"Already radiation levels 160 times the permitted level have been recorded in the mine. "The clay which Minatome plans to use for the earth tailings dam dissolves in water, and will let contaminated water pass through. The nearest suitable clay is hundreds of kilometres away, and half the known deposits of this type of clay in Australia would be required to adequately line the dam.

"When the river level falls during the dry season, the contamination will be more concentrated where radioactive particles of silt accumulate in the remaining waterholes.
"Already a level of radioactivity two and a half times the legally permitted level has been recorded in a creek which flows into the river. This was from a stockpile of 3500 tonnes. When the mine is in operation, the stockpile will be two and a half million tonnes.

Proposed mining of the deposit was to be primarily open cut, but with about one third of the orebody being underground mined. The 1984 Environmental Impact Study was accepted by state and federal authorities, and a water monitoring program is continuing.

The 2004 Townsville State of the Environment report found the regions groundwater under serious pressure. Any uranium processing in the area will increase that pressure significantly due to the enormous amounts of water sued by the industry and the potential for tailings leaks and spills.

The Townsville region is surrounded by aquatic habitat for wetland birds, and includes some critically endangered species including the Capricorn Yellow Chat and the Cotton Pygmy-goose.

3.2 Maureen, Trident & Twoges also known as the Georgetown Uranium Project

Location: 45km N of Georgetown
Indigenous locals: Ewamian, surrendered native title over the gulf townships of Einasleigh, Forsayth, Mt Surprise and Georgetown in return for access to their traditional country through three reserves (in Einasleigh, Forsayth and Mt Surprise).
U ore load: 0.12% U308
Estimated load: 3000 tonnes
Owned by: Mega Uranium Ltd http://www.megauranium.com/

History:
Under previous ownership, Maureen was intended to be mined in connection with Ben Lomond, probably using the same mill.

Environmental issues:
Maureen & Twoges are in the Gilbert & Einasleigh River catchments. The Georgetown region and north is the only remaining population of the endangered Golden-shouldered Parrot "Psephtus chrysopterygius".

3.3 Valhalla, Skal and Anderson's Lode

Location: 40km N of Mt Isa
Indigenous locals: Kalkadoon
U ore load: 0.1% U308
Estimated load: 16500 - 20 million tonnes
Owned by: Summit Resources (SMM) http://www.summitresources.com.au/ & Resolute Mining. U deposits: also at Bikini, Pile and Red Alpha.

Address:

Summit Resources Ltd.
129 Edward Street
12 Traders Way
Perth WA 6000 AUSTRALIA
Mount Isa QLD 4825 AUSTRALIA
Telephone : +61 8 9227 9755
Telephone : +61 7 4743 1723
Facsimile : +61 8 9328 6322
Facsimile : +61 7 4749 0436

Email : summitresources@bigpond.com
CEO: Alan J Eggers

Resolute Mining
Registered Office & Business Address
4th Floor, The BGC Centre
28 The Esplanade
Perth, Western Australia 6000
Postal: PO Box 7232 Cloisters Square
Perth, Western Australia 6850
Tel: + 61 8 9261 6100
Fax: + 61 8 9322 7597
contact@resolute-ltd.com.au
CEO: PR Sullivan

History: Summit Resources CEO Alan J Eggers. Eggers in November 2005 gave a presentation to the Standing Committee on Industry and Resources in Canberra where he argued that "is a major contributor to the reduction of greenhouse gases in an energy hungry world", that "The nuclear power industry is the safest form of power generation that man has used to date" saying that Chernobyl killed just 31 people. He also claimed that yellowcake is "not radioactive" and compares uranium mining to "normal terrestrial gamma radiation" says "Uranium is about as dangerous as lead based paint", and slated the safety records of coal mining and natural gas. He told the committee that his land contained "style of mineralisation very similar to that at Roxby Downs. These are massive world-class deposits" and that "Our deposits, at this point anyway, are not as large as at Roxby Downs but are certainly two or three times the grade...1,500ppm"

He also told them that "The public opinion is not necessarily as some people would say" and that "as I say, there is no ban on uranium mining in Australia; it is the Labor Party policy of not approving new mines that gives us all uncertainty. There is not a state that I am aware of that has had a Labor government forever." (Hansard, 2005).

Summit's chief geologist Peter Rolley told the Courier Mail on March 11, 2006 that, "We certainly haven't been lobbying any parliamentarians...It was very interesting to see Mr McGrady's comments ". According to Eggers statement in Hansard, Summit met with Tony McGrady first in 1998 when he told them to "leave it to us", and Eggers in November 2005 presentation to the Standing committee.

Environmental issues:
Vahalla, Skal and Anderson's Lode are in the Leichardt River catchment.

The government's Regional Natural Resource Plan for Southern Gulf of Carpentaria identifies water as a crucial issue for the region. The Gulf Water Resource Plan says that in 2003 15,700ML was being extracted from the Leichardt River and 25ML from groundwater for industrial purposes. Summit Resources reckon Valhalla has a potential great at Olympic Dam mine in south Australia. Demand for water in the region would double if Valhalla were even half the capacity of Olympic Dam uranium mine and used the same mining technique.

3.4 Westmoreland, near Settlement Creek

Location: 400km N of Mt Isa, extends into Northern Territory
Indigenous locals: Two native title claims by the Gangalidda and Garawa peoples.
U ore load: 0.12%
Estimated load: 21,000 tonnes
Owned by: Laramide Resources Ltd. licensed from Rio Tinto for US$ 150,000 plus some Laramide shares
Address:

Laramide Resources Ltd.
Exchange Tower,
Suite 3680
130 King St. W. Toronto, ON, Canada
T: 416.599.7363
F: 416.599.4959
http://www.laramide.com/
Marc C. Henderson, President, Toronto, Canada +1 (416) 599 7363

Environmental issues:
Westmoreland is on Lagoon Creek and in the Settlement Creek catchment. Lagoon Creek has a spectacular gorge.

It is just north of Boodjamulla (Lawn Hill) National Park & Lawn Hill Gorge, a site rich in fossils. The Waanyi people believe that if you tamper with the water, pollute it or take it for granted, the Rainbow Serpent will leave, and take all the

water with him.

The main deposits are adjacent to the Redtree Dyke in catchment of Settlement Creek, one of the eight gulf country rivers being considered for Wild Rivers protection by the QLD state government.

Westmoreland is inundated in the wet season, creating habitat for wetland birds and some grasslands. Of note is the Yellow Chat "Crocea" race, "Macgillivrayi" race of the Purple-crowned Fairy Wren and the little Corella "Cacatua normantoni" endemic to a limited area along the NT/QLD border on the Gulf, and the endangered Gouldian Finch. Sightings of the endangered Carpentarian Grasswren have been made at Westmoreland Station.

The Second Birds Atlas Australia found that 20 species of wetland birds are declining in numbers. Yellow-billed spoonbills are of concern in the northern wetlands, decreasing 20% from 1998-2002.

In 1988 a rare species of "Livistona" species of palm was identified at Westmoreland Station. The areas flora is relatively unchanged or cleared, so represents vegetation communities vary from Mitchell grass to box and acacia woodlands, saline mud flats and mangrove-lined estuaries.

Social issues:
"Queensland Mines' interests in uranium at Westmoreland (Northern Queensland) have also attracted the strong opposition of the Aboriginal custodians of the land: Mick Miller, Joyce Hall and Jacob Wolmby of the North Queensland Land Council (a completely Aboriginal body) demanded that Queensland's partners at Westmoreland - Urangesellschaft should get off their land when the NQLC visited Urangesellschaft's offices in West Germany in 1978." http://www.sea-us.org.au/no-way/westmoreland.html

3.5 Amethyst Castle & Three Amigos

Location: 7km N of Selwyn Mill, 100km S of Cloncurry
Indigenous locals: Kalkadoon
Owned by: Ivanhoe Mines
Address:

Ivanhoe Cloncurry Mines
PO Box 1798
Mt Isa 4825 QLD
(07) 4769 6800
Fax
(07) 4769 6888
http://www.ivanhoe-mines.com

CEO Robert Friedland

Friedland has been associated with a number of questionable business and environmental practices including: biggest cyanide leak in US history at Summitville, Colorado US mine that leached months of cyanide pollution and cost $20 million to clean up; a similarly huge cyanide spill in Guyana that killed two rivers; and controversial deal with the Burmese military junta, the SPDC who MiningWatch Canada say are being well supported by funds from Ivanhoe's mining activities. Allegations made against hi are not limited to involvement with African mercenaries "Executive Outcomes" hired by the Angolan government to fight Unita rebels in 1993, and Sandline International mercenaries deployed to fight rebels who eventually occupied the RTZ-CRA mine in PNG in 1997. Protests in Mongolia in April 2006, burnt an effigy of Friedman in protest of the unfair deal their government was agreeing to with Ivanhoe over the Oyu Tolgoi copper and gold deposit in the Gobi Desert. Many Mongolians are living in poverty and see the Ivanhoe deal as denying them of the profits of their own resources and risking great environmental pollution.

Environmental issues:
Amethyst Castle is in the Cloncurry River catchment.

The region is home to the only known distribution of the "Macgillivayi" race of the Australian Ringneck parrot.

3.6 Oasis

Location: near Greenvale, 200km N Charters Towers
Indigenous locals: Kalkadoon
Owned by: Glengarry Resources. CEO:
Address:

Glengarry Resources Ltd
35 Havelock Street
West Perth WA 6005

PO Box 975
West Perth WA 6872
Telephone: (08) 9322 4929
Facsimile: (08) 9322 5510
Email: info@glengarrynl.com.au
Glengarry Resources Nl
Unit 1 68 Railway Ave Railway Estate 4810
(07) 4772 5880

History:
Environmental issues: Oasis and Greenvale are in the Clarke River catchment in the Burdekin Basin.

The QLD governments Draft Water Resource Plan for the Burdekin Basin 2002 says, "There are limited groundwater resources available for development in any of the subcatchments other than in the lower Burdekin and Bowen areas. Those that are available for development are normally of a limited yield and are suitable for stock and domestic purposes only" (p35.)

Interestingly, in this plan the only reference to issues of pollution from tailings dams is with reference to sites for new dams. Tis is despite the fact that tailings dams in the area from resident gold mines have been a source of contamination and animal deaths from the cyanide they contain. Suggests a serious omission in the water planning process. Similar issues will exist for uranium mines tailings dams, which contain high levels of acid as well as being radioactive.

In April 2006 The Townsville Bulletin reported that Burdekin schoolchildren had been drinking water contaminated with uranium. Uranium and selenium was detected in the Millaroo and Dalbeg water supplies at levels higher than the Australian Drinking Water Guidelines recommend. Queensland Health declared the water safe to drink.

Political issues: Nationals MP Shane Knuth opposed to U mining in his electorate (Charters Towers) due to water issues

3.7 Mary Kathleen

Location: 50km W Mt Isa
Indigenous locals: Kalkadoon
Owned by: formerly Rio Tinto, now owned byMatrix Metals. CEO: Andrew P. Chapman

Address:
Matrix Metals Ltd.
1131 Hay Street, West Perth
Western Australia 6005
Ph: +61 8 9486 7100
Fax: +61 8 9486 7300
Email: email@matrixmetals.com.au
Matrix Metals Limited
32 Scarr St Cloncurry 4824
(07) 4742 0308
Matrix Metals Limited
Kajabbi 4824
(07) 4742 5188
Matrix Metals Pty Ltd White Range
Un Abov 30 A Scarr St Cloncurry 4824
(07) 4742 0309

History: Queensland's only existing uranium mine closed in 1982. During it's operation from 1958, Mary Kathleen Uranium (MKU) produced uranium mainly for the British Atomic Energy commission. It experienced financial difficulties precipitated by popular union and dock worker actions, and a drop in world uranium prices. It was subsidized by the Federal government who were accused of helping to keep the mine open for political purposes (to break the unions). On another occasion it was unable to meet the supply of it's contracts and had to 'borrow' yellowcake from Britain. In 1980 two tonnes of yellowcake were stolen from MKU and later found in Sydney where it appeared to be destined for an overseas buyer.

RECENT History: A December 2005 newsletter of the Qld Dept of Natural Resources and Mines reports that Matrix Metals have discovered new uranium deposits near MK at White Range, McCabe, Vulcan and Leonie.

Environmental issues: Mary Kathleen is in the Leichardt River catchment.

"When the mine closed in 1982, MKU had produced around 9000 tons of U308 in its 26-year history - and 31 million

tons of rock (3500 times as much radioactive rubbish as uranium). It left a “conical hole about 250 metres deep, four kilometres wide at the top and about 100 metres across at the bottom”” (Excerpt from Roger Moody’s “Plunder!” (1991), a global look at Rio Tinto Zinc’s activities worldwide). In rehabilitating the mine site, instead of the using clay to cover the tailings site, the company has covered the tailings with rock mixed with soil taken from the MKU site itself: still radioactive.

According to the 1997 Senate inquiry into uranium mining, MK remediation work won an award from the Institution of Engineers Australia for environmental excellence in 1986.

3.8 Juntala

Location: Georgetown-Townsville uranium field
Indigenous locals: Kalkadoon
U ore load:
Estimated load:
Owned by:

Buffalo Gold Ltd.
Suite 300 — 1055 West Hastings Street
Vancouver, British Columbia, Canada
V6E 2E9
Tel: (604) 685-5492
Fax: (604) 685-2536
Toll Free: 1-888-685-5492

Damien Reynolds, President, Chairman of the Board of Directors and Chief Executive Officer

History: Buffalo Gold are also exploring for uranium in Westmoreland and adjacent Northern Territory locations.

Environmental issues: As for Georgetown, Maureen, Trident & Twoges. The water issues that exist for the Georgetown, Townsville, and Greenvale region are outlined in the entry on Oasis.

3.9 Ardmore/Black Sunday

Location: 80km SE of Mt Isa
Indigenous locals: Kalkadoon
U ore load: at Black Sunday, estimated between0.2-0.33%
Owned by:

U308
Limited
ACN 113 446 352
2nd Floor
33 Ord Street, West Perth
Western Australia 6005
Tel: (08) 9481 2243
Fax: (08) 9321 0070
Web: www.U308.com.au

History: UTO also has land holdings in Westmoreland, Maureen and Gregory

Environmental issues: As for Amethyst Castle, Georgetown, Maureen, Trident & Twoges. The water issues that exist for the Georgetown, Townsville, and Greenvale region are outlined in the entry on Oasis.

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Appendix i. Put in perspective: The half-life of some uranium products

Half-life means the time required for half of the atoms in any given quantity of a radioactive isotope to decay. Each particular isotope has its own half-life. This information can give you some perspective of the magnitude of the problems with nuclear waste.

Uranium Product	*Use*	*Half-life*
U308 - uranium oxide, also known as yellowcake (although not always yellow)	The milled product of mines, the form in which uranium is sold for enrichment into other forms including those below.	Given that it contains the below isotopes, it has the maximum half-life of 4.5 billion years.
U238: enriched uranium. 90% of uranium isotopes are of this kind.	Most common uranium isotope, used in nuclear power	4.5 billion years
U235: highly enriched uranium. Only 0.7204% of naturally occurring uranium.	Key fissile component in nuclear weapons & nuclear power plants. Deplete uranium is the left-over product of enrichment that is used in DU weapons (hence 'depleted' is misnomer).	704 million years
U234: enriched uranium	As above	245 thousand years
P244: plutonium	A product of U238, used to produce fissile plutonium, P239	82 million years
P239: plutonium	A key fissile component in nuclear weapons	24 thousand years

* Source: Institute for Energy and Environmental Research
http://www.ieer.org/fctsheet/uranium.html