NB: The following is a compendium of publically sourced stories related to the gas industry in Australia. It is by no means comprehensive as time does not permit keeping up with the growing number of problems associated with the industry.

• 23 Nov 2016 – QGC plead guilty to two more charges for offences breaching EPA Act

https://www.qt.com.au/news/qgc-pleads-guilty-to-two-charges/3115205/

QUEENSLAND Gas Company has been fined \$60,000 and ordered to pay \$3,428.23 in investigation and legal costs after pleading guilty to two offences under the Environmental Protection Act in the Roma Magistrates Court. The charges related to the release of 46,000L of brine from an underground brine transfer pipeline at the company's Kenya Water Treatment plant on October 16, 2015.

• 24 Oct – Regular LNG plant shut-downs bring deterioration in Gladstone Air quality

https://www.qt.com.au/news/curtis-island-flaring-brings-plume-black-smoke/3103692/

The reason for the smoke was because the supply of natural gas to the train was reduced and flaring was used to evacuate propane from the train's processing systems so work could be safely undertaken.

• Oct 2016 - QGC fined for noise breaches impacting farmers

http://www.abc.net.au/news/2016-10-18/qcg-ordered-to-reduce-noise-at-csg-plant/7943736

The Department of Environment and Heritage Protection issued the order to ensure noise obligations, for the Kenya Gas project near Chinchilla, are met. A department spokeswoman said the EPO sets out action to address non-compliance matters. **She said QGC was handed two \$11,385 fines for breaking night-time noise rules between April and July, 2015.** If the EPO is breached, the company could face fines up to \$3.8 million, or individual staff could be forced to pay \$761,875.

<u>http://mininglink.com.au/story/qgc-receive-environmental-protection-order</u> The family made 32 formal complaints over a 4-year period before the Government acted.



• 17 Feb, 2016 – CSG Liars Cheats and Thieves – Senate Inquiry Dalby.

https://independentaustralia.net/environment/environment-display/csg-inquiry-liars-cheats-andthieves,8696

Currently the inquiry is on the Darling Downs with the committee hearing from the residents of Downs of the nightmare of trying to live in the gas fields. The most notable words to come from the inquiry in Dalby on Wednesday 17 February were the CSG industry being labeled: 'liars, cheats and thieves'. Also harrowing beyond words was the description from local farmer Narelle Nothdurft describing the migraines her children suffer. It's on the linked Channel Ten news story, and brings tears to your eyes. Both are interesting quotes as they put to bed the oft repeated assertion from supporters of the industry, e.g. Australian Petroleum Production and Exploration Association (APPEA), that there is happy co-existence in Queensland between farmers and the gas industry (like the lie told by Santos in NSW which was exposed by IA's dep editor, Sandi Keane in 'Sneaky Santos caught out in CSG con').

• 16 Feb, 2016 – AGL plead guilty to undisclosed political donations connected to CSG activity

http://www.camdenadvertiser.com.au/story/3728422/camden-csg-sites-dominate-aglunreported-donations-list/

Six of the developments associated with unreported donations were in the Camden area. The locations included project at Mount Taurus and Paceway, EMAI, Spring Farm and Menangle Park, Kay Park, Menangle and Rosalind Park and Sugarloaf Farm. It appears all of the applications in Camden were approved. One of the applications in question, for Mount Taurus and Paceway Stage 2B, did have a political donation disclosure form attached on the department website with \$37,085 of donations listed. A donation of \$13,750 went to the NSW Labor Party executive branch for a business membership. Other donations, totalling \$23,335, went to Liberal Party and National Party events and memberships such as the Millennium Forum. Other disclosure forms attached to developments list donations totalling over \$40,000.

• Feb, 2016 - Origin executives knew of oil leaks into aquifers

http://www.theaustralian.com.au/business/mining-energy/origin-executives-knew-of-oils-leaksinto-acquifers/newsstory/6f5aa2b1a6c150107671ba755ccda9ca?nk=5ced122e32bc74f65716509f23ac6908-1455011281

Origin Energy executives raised concerns about oil leaking into underground aquifers from its wells in Queensland more than a year and a half ago, documents obtained by The Australian show. The revelation appears to -contradict repeated statements by Origin to The Australian that it did not know of any oil leaks into -aquifers in Queensland's Surat Basin, which sits atop Australia's largest underground water supply, the Great Artesian Basin... The documents show the problem was raised at a meeting, attended by more than 20 executives including general manager of production John Rodda, to discuss abandoning Origin facilities in Queensland, Western Australia and Victoria. "Oil contamination in aquifer" was identified as one of the - "issues, barriers, risks and uncertainties" at Surat, according to minutes of a "project framing workshop" held on May 22, 2014 and obtained by The Australian.

• 26 Jan, 2016 – Origin covered up serious compliance failures

http://www.afr.com/business/energy/gas/origin-energy-employees-offer-evidence-to-supportwhistleblower-case-20160125-gmdpnr

At least 20 current and former employees of **Origin Energy** have offered to be witnesses in support of whistleblower Sally McDow's Federal Court action, in which she has alleged the **company covered up** serious compliance failures at its gas and oilfields.

 20 Jan, 2016 – Yancoal drags QGC into environmental dispute with state govt over two leaking wells.

http://www.couriermail.com.au/business/chinas-yancoal-drags-qgc-into-environmental-disputewith-the-stategovernment/news-story/cf2b4924c98384e8fad37bef1131d8d9

"..documents lodged in the Supreme Court show [Yancoal] has had trouble containing the pollution from two holes ... Yancoal said it notified the department of groundwater and gas releases "which it contends were an unexpected consequence of gas field operations carried out by (QGC) pursuant to its approvals"

• 31 Dec, 2015 – Whistle blower claims Origin not reporting non-compliance issues (spills, leaks)

http://www.theaustralian.com.au/business/mining-energy/whistleblower-sacked-in-originenergy-coverup-court-told/news-story/572d0b7b1f460f12ea3f464f9294ea45

Allegedly unrecorded issues included the "<u>failure to maintain, or to properly maintain, the integrity</u> <u>of Origin gas wells", causing leaks, "including discharge of oil into aquifers"</u> at the company's wells in Queensland's Surat Basin — a formation that is part of the crucial Great Artesian Basin that supplies fresh water to farmers across vast areas of Queensland, NSW and the Northern Territory.

• 24 Dec, 2015 – Pond liners at AGL Fracking site found to be leaking.

http://www.epa.nsw.gov.au/prpoeoapp/Detail.aspx?id=20358&option=prpcond&searchrange=lic ence&range=POEO+licence&subheaderid=6167

<u>The discovery of a hole in the HDPE membrane</u> has raised concerns regarding the integrity of the holding ponds at the AGL's Tiedmans premises. To address these concerns the licensee must complete a thorough assessment of the three dams, to identify any weaknesses, holes or potential imperfections which may result in leaks or splits in the membrane, and undertake any necessary rectification works to ensure the liners are impermeable.

• 4 Dec, 2015 – Two separate Gas industry fires in one day - Fire at well-site and a pipeline fire

http://www.thechronicle.com.au/news/firies-battle-gas-line-blaze-western-downs/2862819/

Pipeline: Multiple fire crews are working with coal-seam gas workers to control a fire which broke out on a gas line this morning. Three Queensland Fire and Emergency Services crews are working to isolate a valve in an effort to extinguish the fire in the line at Wieambilla, west of Dalby. Fire crews are working with QGC workers to isolate the valve. **Well-head fire:** A QGC spokesman said fire crews had extinguished a fire "at a small engine on a natural gas-well site on QGC property" which broke out this morning about 35km south-west of Chinchilla.

• 2 Dec 2015 - QGC warns of flaring on Curtis Island during train shutdown

https://www.qt.com.au/news/qgc-warns-of-flaring-on-curtis-island-during-train/2859782/

CURTIS Island LNG company QGC started the first shutdown of train 1 on Monday and this is expected to last 10 days. In October QGC was fined \$8538 for causing an "environmental nuisance" for the visual impact of smoke from one flaring event in March.

• 11 Nov, 2015 – Australia's coal seam gas industry will be investigated by a Senate committee after Glenn Lazarus won upper house support for an inquiry.

http://www.sbs.com.au/news/article/2015/11/12/senate-investigate-coal-seam-gas-sector

A Senate committee will investigate regulations in Australia's coal seam and shale gas mining sectors. Independent senator Glenn Lazarus on Thursday won support for the inquiry, which will look at the health, social, agricultural and environmental impacts of unconventional gas mining.

• 5 Nov, 2015 – Coronial inquest into coal seam gas worker Glenn Newport who died in hot conditions

http://www.abc.net.au/news/2015-11-06/coronial-inquest-csg-worker-glenn-newport-diedhotconditions/6920046

"In Queensland, we don't have a stop work temperature - they just work all day, if its 40, 50, 60 degrees they keep going," he said. "[In] Western Australia, Victoria they have quite specific temperatures in which they down tools." The coroner said he would consider submissions, but expected to make recommendations around the mandatory evacuation of people suffering heatstroke and new workplace policies in relations to extremely hot days.

• 23 Oct, 2015 – QGC fined for LNG flare smoke incident on Curtis Island

http://www.gladstoneobserver.com.au/news/qgc-fined-over-Ing-flare-smokecurtisisland/2816977/

QGC has been fined \$8538 for causing an environmental nuisance after a flare released a plume of black smoke at its Curtis Island LNG plant. An infringement notice was issued to QGC following EHP's investigation into the release of smoke on March 10 from a flare near Gladstone. Subsequent black smoke events are still being investigated.

• 19 Oct, 2015 – Mercy mission Chinchilla after farmers suicide death

http://www.thechronicle.com.au/news/mercy-mission-chinchilla-after-farmerssuicidedea/2810996/

JUST days after the tragic death of Chinchilla farmer, George Bender, international representatives of a group concerned about human rights and mining will be in town to offer their support to the grieving community. Sisters of Mercy, Sister Aine O'Connor and Sister Denise Boyle are members of United Nations for Mercy International Association whose work includes human rights issues in relation to mining and unsustainable development. The Sisters are visiting Chinchilla to gain a local perspective on this global issue surrounding human rights and the extraction of unconventional gas. They will share information from Canada, Ireland and USA and the upcoming International People's Tribunal into fracking planned for 2017.

• 19 Oct, 2015 – Govt stays tight-lipped on gas flare problem

http://www.gladstoneobserver.com.au/news/govt-stays-tight-lipped-on-probe/2810402/

THE State Government has confirmed it is investigating recent flaring incidents on Curtis Island, although they wouldn't tell us any more than that "until the investigation is complete"

• 17 Oct, 2015 -Qld premier "vows" to look into the Bender suicide

http://www.pressreader.com/australia/thecouriermail/20151017/281642484013866/TextView

• 15 Oct, 2015 – Malcolm Turnbull will 'look into' suicide of anti-CSG farmer George Bender

http://www.theguardian.com/australia-news/2015/oct/16/malcolm-turnbull-csg-georgebendersuicide

• 15 Oct, 2015 – GEORGE BENDER - CHINCHILLA FARMER, whose bore water was impacted by Origin Energy CSG activities and whose farm was also impacted by failed Linc UCG trial, commits suicide.

http://www.brisbanetimes.com.au/queensland/senator-glenn-lazarus-calls-for-csg-haltafterfarmer-george-benders-death-20151015-gka88a.html

• 10 Oct, 2015 – How Coal and Gas get their way in fossil rich Queensland

https://independentaustralia.net/politics/politics-display/report-how-coal--gas-get-their-wayinfossil-fuel-rich-queensland,8241

A new report by The Australia Institute details the complex interactions between the coal and gas industries across current and previous Queensland state governments. Graham Readfearn follows the money trail and phenomenon of the "**revolving lobby door**".

• 2015 – Medical Journal of Australia - Unconventional natural gas development and human health: thoughts from the United States

https://www.mja.com.au/journal/2015/203/7/unconventional-natural-gas-development-andhuman-health-thoughts-united-states

If unconventional gas development (UGD) continues to expand in Australia, the potential health and environmental impacts should be adequately addressed and preventive public health measures should be implemented. The United States has embraced UGD and has decades of experience that could be beneficial to Australia as stakeholders debate the potential benefits and harms of the technique. Additional research on the health impacts of UGD is necessary. Baseline and trend morbidity and mortality data need to be collected to assess changes in population health over time. To date, few health or epidemiological studies have been conducted, so it remains difficult to assess actual health outcomes. In the absence of scientific consensus, there are two possible risks: failing to develop unconventional natural gas when the harms are manageable; or developing it when the harms are substantial. Many government bodies around the world have chosen to minimise the risk of the latter until the impacts of UGD are better understood. Policies should be informed by empirical evidence based on actual experience rather than assurance of best practices. There is a strong rationale for precautionary measures based on the health and environmental risks identified in the scientific

• 6 Oct, 2015 – Toxic Truth: Contamination, cancer growing up at the gasworks

http://www.theherald.com.au/story/3405284/toxic-truth-contamination-cancer-growing-up-atthe-gasworks/?cs=12

EIGHT children grew up in a house on the Hamilton Gasworks site before it was closed in 1985, declared contaminated, and left derelict for 30 years until belated government action to force remediation. Now members of the Frost family, who lived on the site in the manager's house between 1954 and 1973, want answers from AGL and the NSW government after a disturbingly high rate of disabilities, deaths and severe and life-threatening conditions, including cancer, affecting two generations of family members. They contacted the Newcastle Herald after an article revealed the derelict gasworks property was one of the Hunter's most contaminated sites, with reports showing it is leaching carcinogenic and toxic materials into groundwater that poses a risk to human health and the environment.

• 30 Sept, 2015 – FIFO accommodation and the rental debacle: Terry Ryder

http://www.propertyobserver.com.au/terry-ryder/46593-fifo-accommodation-and-the-rentaldebacle-terry-ryder.html

A town can have a \$2 billion project happening 5km down the road without any change in the local unemployment rate or the residential vacancy rate. In fact, the vacancy rate may well rise if developers build new dwellings in anticipation of increased demand. Gladstone's influx of tens of thousands of new jobs coincided with its vacancy rate rising from near zero to 10%. Most of the worker stayed in camps on an offshore island.

• 28 Sept, 2015 – Santos "flare" on Port Curtis Island



• 28 Sept, 2015 -- NSW government too slow to act on CSG regulation

http://www.smh.com.au/environment/environmental-groups-claim-nsw-government-too-slow-toact-on-csg-regulation-20150925-gjvfwr.html#ixzz3mzQzF7j6

The NSW government is yet to meet eight of the 15 recommendations made by the NSW Chief Scientist, one year after they were made in the final report into coal seam gas, environmental groups say Monday marks one year since NSW Chief Scientist and Engineer Professor Mary O'Kane gave her review on coal seam gas, at the request of the government to "focus on the impacts of these activities on human health and the environment".

• 28 Sept, 2015 – Law academic wants clearer compensation laws for landholders affected by gas exploration and production

http://www.abc.net.au/news/2015-09-28/lawyer-on-gas-compensation/6806008

Deakin University's Professor Samantha Hepburn agreed, but said the regulation had to be "torn apart" to make sure it was rigorous enough to protect landholders. She said the compensation farmers received differed around the country and often depended on people's negotiation skills."It will depend on the volume of wells... the type of surface industry you had and how that industry is impacted. "Did you have an established dairy farm for example, and how are those drills going to affect that dairy

farm?" Professor Hepburn said the amount of compensation awarded to landholders varied from **\$30,000 to reinforce windows against noise**, while others who could prove a greater loss might get as much as \$200,000.

• 27 Sept, 2015 – NSW Environment Protection Authority investigating handling of gas drilling waste

http://www.smh.com.au/nsw/missing-csg-waste-from-agl-broke-site-found-but-investigationsunderway-20150926-gjviab.html

The Environment Protection Authority has launched an investigation into contaminated coal-seam gas drilling mud waste from an AGL drilling operation in the Hunter, after reports it had gone missing and was then found. A spokeswoman for the authority said legal notices had been served on the transport company that moved the waste from a site near Broke and on the facility that took the waste. "As investigations are continuing, the EPA has no further comment on this matter," she said.

• 22 Sept, 2015 - Flare questions to be taken by Department of Environment

http://www.gladstoneobserver.com.au/news/flare-questions-will-be-answered/2783475/

A REQUEST for clarity from the state government about the safety of flare emissions on Curtis Island --- including explaining changes to the original environmental impact statement --- is expected to be resolved when the Department of Environment and Heritage Protection visits on October 19. Minutes from the Gladstone Region Environmental Advisory Network meeting in August detailed concerns about the smoke emitted from the LNG flares, as well as raise questions about the number of air monitoring systems.

• 20 Sept, 2015 - Contaminated CSG waste from AGL site near Broke in the Hunter goes "missing"

http://www.smh.com.au/nsw/contaminated-csg-waste-from-agl-site-near-broke-in-the-huntergoes-missing-20150918-gjqblj.html#ixzz3mzeNkBRy

It is the baffling case of a "missing" 212 tonnes of contaminated waste from a former coal seam gas drilling operation in the Hunter Valley. An Environment Protection Authority report written in 2013 said the waste was transported to a "composting" business which was not licensed to take it, sparking concerns by the EPA it "was not being disposed of in an environmentally friendly and proper manner". AGL dockets are understood to show the destination for their waste was Bettergrow Pty Ltd. But the business it was supposedly sent to, Bettergrow, said it never received the waste. Spokesman Craig Hogarth said the company had taken a conscious decision not to take any CSG waste even if they were licensed to.

• 4 September, 2015 – NSW Coal Seam Gas toxic waste dumped in Brisbane

http://www.4bc.com.au/news/nsw-coal-seam-toxic-waste-dumped-in-brisbane-20150904gjey5f.html

Further investigations have revealed that the Narangba water treatment plant is receiving 3 truckloads per week with each truck holding 20,000 litres. Efforts to contact Andrew Vesey - Managing Director and Chief Executive Officer of AGL the company responsible for the waste fell on deaf ears at the time

of going to air. An interview request with Executive General Manager Jason Dixon from Tox Free the company contracted to ship the toxic waste led them to palm us off to AGL. Three separate water boards in New South Wales have rejected the processing of this toxic waste so why are we taking it?

• 29 August, 2015 - Qld - Will this be the year the Darling Downs coal seam gas bomb goes up?

https://independentaustralia.net/environment/environment-display/the-darling-downscoalseam-gas-bomb,8106



As soon as I saw this picture, my immediate thought was "that must be an extraordinary bushfire threat". So I contacted John and some other residents of the Downs with whom I regularly interact and asked them if they were worried about the threat of bushfire now that their community has been turned into a giant gas field. The short answer was "yes". These fears were best articulated by spokesperson for a local community group at Hopeland, Shay Dougall. We had a general conversation about the appalling state of things on the Downs, with Shay saying gas companies were putting residents under a "gut wrenching and soul destroying and life destroying" level of stress. Shay outlined her fears regarding the bushfire/explosion threat: Yes, we have real fears about that. The gas companies have brought thousands of cubic metres of highly flammable gas to the surface, and are uncontrollably venting the gas from hundreds of high point vents all over our communities and piping it under pressure to the LNG plants at Gladstone. In addition to this, they are trialling underground storage of the gas in some locations. Clearly, now the threat is much greater. Bushfires in Australia are always a giant fear and now the gas companies have added all this flammable gas to the mix. When I have asked the government for details of how our community is to respond to an emergency with regard to the presence of gas, there is no answer to the question. I asked McGowan of the general danger coming with the approaching bushfire season. He replied that he was concerned. He confirmed Shay Dougall's assertion that there hasn't been a fire in the area where the wells are now in place since 2002. Now, with the gas wells and pipes in place, this summer is looming as a great fire and explosion risk for those of the Downs. How can government allow the citizens to be subjected to such an appalling, life-threatening risk?

• 24 Aug, 2015 - More flaring likely as Santos GLNG commissioning starts

http://www.gladstoneobserver.com.au/news/more-flaring-likely-commissioning-santons-glngsta/2748160/

INCREASED flaring and potentially dark smoke is likely at the Santos GLNG site as the project begins the commissioning of Train 1. The current activity is commissioning the treating and drying units, which must be completed before drying of the liquefaction unit using warm, dry gas. The company says that during the preparation stage, there will be increased flaring and potentially dark smoke as systems are brought into service. "When this is complete the flare will return to its normal operation," the company said in a statement. "Flaring is an integral part of our plant's operational and safety management systems." "We monitor and manage air quality emissions in accordance with the environmental authority." (However – as last article shows – this is not always the case)

• 14 Aug, 2015 – GLADSTONE FLARING METRES NOT FUNCTIONING DURING TIMES OF GREATEST FLARE IMPACT - Meters monitoring flares not fully functional: report

http://www.gladstoneobserver.com.au/news/meters-monitoring-flares-not-fully-functionalrepo/2740500/

An RTI document obtained by GREAN shows equipment used to monitor contents of flare smoke and gas flow was not fully operational between December 2014 and April this year. FLARE flow meters at the QCLNG plant on Curtis Island, Gladstone had "potential defects" and couldn't be relied on for five months up to April this year, an official information request reveals. The problems with the flare flow meters coincide with the most significant visible flaring activity of recent times. The monitoring meters check for health and environment impacts, as well as the plant's productivity.

• 27 July, 2015 – Downs farmers shocked by pipeline gas release

http://www.thechronicle.com.au/news/downs-farmers-shocked-pipeline-gas-release/2719377/

THE Basin Sustainability Alliance (BSA) is calling for an investigation into the environmental and health impacts of a large volume of gas released from a 90km stretch of Origin Energy LNG pipeline which upset cattle and took landholders by surprise. Landholders up to 25km down-wind from the release at Downfall Creek, about 30km south east of Wandoan, could hear the venting on May 25. Local farmer Neville Stiller, who lives about 8km away, described the May 25 release like "listening to an F1-11 roaring for a couple of hours". A second gas release occurred on July 13. Mr Stiller has told BSA that the volume going into the sky during the first release on May 25 was around four times higher and significantly louder compared to what can be witnessed on the footage from July 13.

• 14 July, 2015 – MORE FLARING - GLNG flare to increase in size as first gas gets closer

http://www.gladstoneobserver.com.au/news/glng-flare-increase-size-first-gas-getscloser/2704806/

"Flaring is the safest and most environmentally friendly way to release gas from the Santos GLNG facility, and is part of our stringent safety controls that meet the requirements of the Queensland Work Health and Safety Act 2011."

• 11 July, 2015 – Qld - (sic) Hopetown residents fear fracking has destroyed land.

http://www.couriermail.com.au/business/hopetown-residents-fear-fracking-has-destroyedtheirland/story-fnihsps3-1227393512049

HOPELAND residents asked what other disasters could afflict the prime farmland region near Chinchilla on the western Darling Downs at a community meeting held by the State Government on Wednesday night. Locals pointed fingers at the gas industry for a series of events that have left them scratching their heads. PAY DIRT: Company accused of contamination "We've had bubbling rivers, bore explosions and subsidence," Hopeland grain farmer Arthur Gearon said. "No one has been able to tell us why the (Condamine) river is bubbling. It's the unknown that is causing the fear. We don't want to see the end of the (gas) industry, but can we halt and let the science catch up?" Their fears were raised once again by claims lodged in court by the State Government this week that Linc Energy's underground coal gasification plant had contaminated 320sq km of farmland, affecting 50 landowners, with hydrogen, carbon monoxide and hydrogen sulfide. The hydrogen is potentially explosive.

• 9 July, 2015 – Chinchilla mum brings CSG fight to PM's doorstep

http://www.sunshinecoastdaily.com.au/news/chinchilla-mum-brings-csg-fight-to-pm/2698867/

She says everyone in her family has suffered health effects since QGC started drilling on the property in 2005. "All of the children, me and my husband suffer very bad headaches and a couple have been having nose bleeds," she said. "We're sick all the time. "We mainly suffer from the noise of the wells, the rigs and the plants. We're only 6km from the Kenya plant and the noise is horrendous. "My husband and I don't sleep at night and we don't use one of our rooms because it is always rattling." Mrs Nothdurft said she was paid \$265 per well per year - a grand annual total of \$1855 for the seven wells on her land. "They said if we didn't let them come, they would take us to the Land Court and take our land off us," she said. "My husband refused to sign a confidentiality agreement when they came, which is why I'm able to talk about how much money we get."

• 1 July, 2015 – GAS INDUSTRY BULLY LANDHOLDER - QGC use SLAPP to constrain gas field resident over facebook post - charges were later withdrawn due to lack of evidence.

http://www.thechronicle.com.au/news/downs-man-court-facebook-threat-shoot-csgstaff/2692012/#/0

A TARA man who fronted court over an anti-CSG Facebook post says "common sense prevailed" after his charge of "using a carriage to menace" was withdrawn. John Jenkyn was discharged by Magistrate Kay Ryan, with the prosecution offering no further evidence to support the charge when the hearing resumed at midday. The hearing came after coal seam gas giant QGC filed an official complaint against Mr Jenkyn last November, after he took to social media to "vent frustration" about his dealings with the company.

• 19 June, 2015 - QCLNG flaring possible over coming weeks

http://www.gladstoneobserver.com.au/news/qclng-flaring-possible-over-comingweeks/2679406/

THE QUEENSLAND Curtis LNG plant is expected to begin infrequent flaring over the coming weeks as the second production train is commissioned. A QGC statement says flaring represents the controlled burning of gas released from our plant when it cannot be processed into LNG: "This is particularly relevant during the commissioning and start-up phase of construction as the plant is progressively brought online and equipment undergoes performance tests. Flaring from the process flare occurs any time the plant is shut-down for scheduled maintenance, unplanned repairs and maintenance or emergency situations. At these times, flaring is typically short-term. **If refrigerants and nitrogen are present, then black smoke can be emitted with the flame.** "We closely monitor and manage air quality emissions and are committed to keeping our community informed."

• 15 June, 2015 – CSG is destroying iconic Darling Downs as well as resident's health.

https://independentaustralia.net/life/life-display/csg-is-destroying-the-iconic-darling-downsalong-with-residents-health,7792

New York's acting Health Commissioner wouldn't let his family living in the vicinity of fracking, and our health specialists are warning the Palaszczuk government that ill health reported by families in Queensland's gas fields can no longer be dismissed. Lachlan Barker investigates.

• 3 June, 2015 – EPA investigates spill at former Metgasco site

http://www.echo.net.au/2015/06/epa-investigates-spill-at-former-metgasco-site/

The Environment Protection Authority (EPA) has commenced investigations into a suspected spill of contaminated water from a storage tank at Metgasco's decommissioned Corella exploration well near Dobies Bight.

• 20 May, 2015 – Shay Dougall to present coal seam gas petition to Glenn Lazarus and Larissa Waters

http://www.brisbanetimes.com.au/queensland/shay-dougall-to-present-coal-seam-gaspetitionto-glenn-lazarus-and-larissa-waters-20150520-gh65xb.html

However the petroleum lease was approved six months before the Strategic Crossing Land legislation was passed, rejected and replaced by similar legislation, she said. Shay Dougall said neither the current government, nor the previous government were giving farming families the same respect as coal seam gas companies. "If they allow coal seam gas mining on strategic cropping land, they will lose it." What the state government says The Department of Natural Resources said their coal seam gas investigations showed problems in five stock bores near Hopeland. "To date, issues have been formally raised by three landholders in the Hopeland area associated with increasing gas in five water bores," a spokesman said. "Investigations found that two of these bores had problems that may be attributable to CSG activities."

 14 May, 2015 – Queensland grazier calling on Government to act on dam spilling coal seam gas water

http://www.abc.net.au/radionational/programs/breakfast/queensland-grazier-calling-ongovernment/6468852

A grazier is calling on the Queensland Government to take action over a dam that's been spilling treated coal seam gas water onto his property. The spill happened earlier this week, and is the second time the dam wall has been breached. Joe Hill, the farmer calling on the Government, runs Wandaloo Angus cattle stud near Miles in southern Queensland.

• 30 April, 2015 – Authorities battle to contain acid spill at CSG site (Woleebee – Qld)

http://www.thechronicle.com.au/news/authorities-battle-contain-acid-spill-csg-site/2623945/

EMERGENCY crews are today battling to contain a hydrochloric acid spill on the western Darling Downs. The spill occurred at Woleebee, north-east of Miles. The spill, at a QGC work site, was reported to authorities about noon.

• 16 April, 2015 – Queensland landholders claim secrecy over experimental coal gasification plant

http://www.abc.net.au/news/2014-04-16/landholders-claim-secrecy-over-experimentalcoalgasification/5395626

Landholders on Queensland's Darling Downs say they are being kept in the dark about the nature of serious environmental harm allegedly caused by an experimental coal gasification plant. Last week the Queensland Government filed four criminal charges of irreversible or "high impact" harm relating to the plant against resources company Linc Energy. It emerged the state's environment department began investigating suspected environmental breaches nine months ago, but landholders told the ABC that the first they had heard of it was last Friday. **Farmer, George Bender, has criticised how long it took the Government to notify farmers.**

• 9 April – EMAIL SHOWS GOVT DOES NOT CONDUCT INDEPENDENT TESTING OF CONDAMINE RIVER BUBBLING - RELIES ON ADVICE OF GAS INDUSTRY

An errant email sent by Queensland's CSG Compliance Unit to Independent Australia underscores the growing concerns about "revolving doors" and "regulatory capture" endemic in the industry.

https://independentaustralia.net/business/business-display/queensland-bureaucrat-string-pullerone-day-csg-mining-big-shot-the-next,7561

The statement: **'… we are in no hurry to respond'** appears to be a delay tactic used for dealing with media enquiries about CSG non-compliance. **'I think Origin is doing ongoing studies and we are just checking their figures...**' and **'We may never determine the cause...**' suggests the CSG Compliance Unit will do a cursory check of whatever Origin sends them and not be too worried if the cause can't be found. (The two closest gas tenements to the site of Condamine leaks are Origin's and Arrow Energy's). As to the line: **'Can we find out what Independent Australia is. I smell green'**, Paul Lynch may smell "green" but we smell "complicity" as his comment reveals a derisory attitude toward any media investigating issues of public safety and water contamination by CSG mining

• 3 April, 2015 – Ex-Im Bank Flouted ESA By Funding LNG Project

http://www.law360.com/articles/639402/ex-im-bank-flouted-esa-by-funding-Ing-project-envirossay

The U.S. Export-Import Bank clearly ignored the risks to endangered species and sensitive habitat when it pumped \$4.8 billion into Australian liquid natural gas projects in the Great Barrier Reef, a trio of environmental groups said Thursday, urging a California federal judge for a quick victory in their lawsuit against the bank. In a motion for summary judgment in the case, the Center for Biological Diversity and its allies said the Ex-Im Bank shirked its duties under the National Historic Preservation Act and Endangered Species Act, with "real consequences" for one of the most diverse and beautiful ecosystems in the world. Potential impacts to the Great Barrier Reef from the Australia Pacific LNG Project and the Queensland Curtis LNG Project include reduced water quality; ship strikes that can kill or displace whales, dugongs and sea turtles; destruction of mangrove and seagrass habitats; underwater noise; and the "general industrialization of a currently relatively pristine area," the groups said.

• 25 March, 2015 – Kate 6 well emitting gas and discharging water from ground in residential estate near Chinchilla/Tara

"Had a scare this morning. Gas well on Winfield red was spewing browny yellow liquid all the way down the road to Mary road and almost to the creek. Tara police attended and after contacting QGC informed me it "is only water". QFES Area Director Mick Patch showed more caution and got the urbans out to check for gas. None was found but that is still untreated contaminated water running freely down our table drains. Thank you to all the firies that turned up with no thought for their own safety."

At 8.30-9.30 am 25/3/2015 at Kate 6

About 250 m from end of Winfield Road, water on side of road, dirty yellow brown liquid coming out of ground about 50 meters from well.



At the moment it is not clear and the response using the Kate 6 incident indicated there was some issues not only with who is responsible at the time of an incident to manage it, but also how the details are communicated and what testing gets undertaken.

QGC was responsible for managing and responding to the incident. This incident was, however, reported through incorrect channels and as such there was a delay in QGC's response to the incident. QGC also reported the incident to the P&G Inspectorate.

QGC became aware of the incident via its remote monitoring of the well; it proceeded to send a maintenance crew out to manually shut down the well. Both QGC and the P&G Inspectorate started an investigation on this event. On 22 April a P&G Inspector met with landholders to obtain further information with regards to their observations on site, followed by a site inspection. The well site was examined for the gas leakage, presence of volatile organic compounds (VOCs), nitrogen oxides (NOx), sulphur oxides (SOx) and hydrogen sulphide (H₂S). None of the mentioned contaminants were identified on site.

It was identified that the skid package used on this well head could not be remotely controlled from the control room and it only had the pressure meters connected to the telemetry which can be monitored remotely. This issue was raised with QGC and it is understood the system will be upgraded accordingly.

With regard to the cause of this incident it has been identified that an increase of pressure between the Boundary isolation valve ('BIV') and the Kate 6 well head caused the Pressure safety valve ('PSV') to activate. The PSV lifted as designed to relieve pressure in the system but did not re-seat correctly when the pressure reduced and this has led to the intermittent discharge of water and gas from the system.

• 17 March, 2015 – Leg Injuries in Crane Accident on Barrow Island (Offshore/LNG)

http://www.amsj.com.au/news/worker-sustains-serious-leg-injuries-in-crane-accident-onbarrow-island/

A worker has reportedly sustained serious leg injuries on Barrow Island off the coast of Western Australia from an accident involving a crane. According to the ABC, the worker's legs were crushed in the incident which happened last Wednesday, just prior to Cyclone Olwyn reaching the northwest coast of WA. Chevron has been constructing facilities for their massive Gorgon gas project on Barrow Island since 2010.

• 16 March, 2015 - Pluto LNG Shut Down By Rogue Drilling Rig (Offshore/LNG)

http://www.amsj.com.au/news/pluto-lng-shut-down-by-rogue-drilling-rig/

Woodside's Pluto LNG plant has shut down production temporarily this morning after another company's submersible drilling rig drifted dangerously close to Pluto's flowlines. Pluto LNG operates an offshore platform in 85m of water in the Carnarvon Basin, approximately 190 km north-west of Karratha, Western Australia. Gas is piped in a trunkline to Pluto's onshore facility, located between the North West Shelf Project and Dampier Port on the Burrup Peninsula of WA.

• 1 March, 2015 - Senators move to give CSG whistle-blower air (CSG/LNG)

http://www.smh.com.au/environment/senators-move-to-give-csg-whistleblower-air-20150227-13qvmm.html

Coal seam gas projects worth almost \$50 billion are under fresh scrutiny, after allegations of rushed, incomplete approval processes that sidelined possible environmental impacts. Efforts will resume this week in a Senate committee to make public documents and comments by a Queensland whistleblower. Senator Glenn Lazarus of the Palmer United Party and Greens Senator Larissa Waters plan to press fellow members of the Senate inquiry into Queensland Government Administration to lift a gag imposed on evidence presented by former state bureaucrat Simone Marsh.

• 26 Feb, 2015 – Wayne Walker, Chinchilla landholder, describes his experiences with CSG Company, Origin Energy. <u>https://www.youtube.com/watch?v=Jk5zDQ-rMa0</u> (CSG)

Nb. Origin have since negotiated to buy *Mr* Walkers property. He has signed a gag clause as part of the contract with the company, preventing him from continuing to speak further on the matter.

• 19 Feb, 2015 - Santos LNG expansion: Independent Expert Scientific Committee report sounds warning over Queensland coal seam gas plans

http://www.abc.net.au/news/2015-02-19/iesc-report-reveals-Ing-expansion-proposalneedsmore-work/6150072

Top experts are warning of significant scientific uncertainties arising from a massive coal seam gas expansion proposal in Queensland. The ABC has obtained a report from the Federal Government's Independent Expert Scientific Committee, which flags a concerning lack of information in project documents and says more work needs to be done on Santos's Gladstone LNG expansion proposal. The proposed expansion covers 10,676 square kilometres and has the potential to include more than 6,000 gas wells across central Queensland.

• 5 Feb, 2015 – Compliance audits completed during 2015 - Summary of findings – QGC (CSG)

https://www.environment.gov.au/epbc/publications/compliance-audits-2015

Although the independent audit found that QGC had met the majority of activities to satisfy the conditions of the EPBC Act approval that were within the scope of the audit, **the independent audit and the Department's review of the findings identified a number of non-compliances relating to**:

- Conditions 5 and 20 which relate to the Constraints Planning and Field Development Protocol (the Protocol) which governs how constraints planning and field development decisions are to be undertaken before the final selection of specific sites for gas field development within the project area are made.
- Condition 9 which requires the approved Significant Species Management Plan(s) to be implemented.
- Condition 26 which required an Offset Plan to be prepared within 6 months of the commencement of the action.

The non-compliance with Condition 26 has previously been addressed by the Department and no further action is required. In relation to the remaining non-compliances the Department is engaging

with the QGC to ensure that they are addressed to the satisfaction of the Department in accordance with the Department's EPBC Act Compliance and Enforcement Policy.

• 4 Feb, 2015 – CSG Pipeline contractors committed visa fraud

http://www.northweststar.com.au/story/2861384/immigration-raids-major-firm-over-allegedvisa-fraud/?cs=12

The raids targeted the offices of Murphy Pipe & Civil (MPC), with documents and other material seized. The firm has allegedly assisted dozens of Irish workers fraudulently obtain 457 temporary skilled and other visas to work on key national projects, including the multi-billion dollar Queensland Curtis Liquefied Natural Gas project and Western Australia's Sino Iron project.

• 30 Jan, 2015 – Qld: landowners fight CSG expansion (CSG)

http://www.abc.net.au/radionational/programs/breakfast/qld-landowners-fight-csgexpansion/6056482

The Coal Seam Gas industry has emerged as a key issue in the Queensland election campaign. Rural lobby group Agforce has accused the Newman Government of backing the multinational coal and gas companies instead of landholders. But as Cathy Van Extel reports, **landowners in the Surat Basin are fighting back.**

• 28 Jan, 2015 – Chemical leak at AGL's Gloucester fracking site (CSG)

http://www.echo.net.au/2015/01/chemical-leakagl-gloucester-fracking-site/

Testing work at the Waukivory project near Gloucester has been suspended after benzene, toluene, ethylbenzene and xylene (BTEX) were detected in flowback water from four drilling wells and in a water storage tank. The state government has called in the EPA to investigate the breach and energy minister Anthony Roberts has questioned why it took the company almost a fortnight to admit the problem to the regulator.

• 25 Jan, 2015 – Jang's water bore contaminated – drilling activity nearby thought to be responsible – QGC and government failed to respond adequately to requests to investigate – owners "walk away" from property due to health concerns. (CSG)

5 years ago they sunk a bore for their property. They have excellent records on this young bore. In 2012 QGC did a baseline test on is as part of their activities in the region. This report does show some interesting results that indicate a change may have been happening.

On 19 January, John Reid and Adam Simon went to Greg's house to investigate his complaints of the water from his bore being awful. He has linked it in timing with the well that was drilled by QGC within 500 m away in direct line with his bore.

The readings of high methane and high H2S was recorded in the bore water and this was filmed and photographed.

John Reid and Shay Dougall complained to the CSG Compliance Unit, EHP, DNRM on 20 January.

CSG Compliance said they would send some people to test it.

On Wednesday John Herbet from CSG Compliance rang him and told him that they are looking in to it, and that they are getting reports from QGC .

To date no person from the authorities has been to Greg's home to act on this. Greg and his family continue to be in a state of great angst, fear, greif, as their world is falling about them.

Greg is desperate to have his own independent tests done on the bore water and on his drinking water.

Greg took the pictures of the bubbling bore into QGC on Wednesday, he was offered no support but told someone would be in touch. He called them back Wednesday afternoon and Thursday. By Thursday at 3pm QGC "Patrick" rand and told him that CSG Compliance unit was now investigating the issue.

Over the last two months Greg had noticed that his pigs were wasting and not fattening, although nothing had changed. After putting together the water condition and their condition, of wasting,

• 23 Jan, 2015 – GCC response to Jon Black (Director-General, Department of Environment and Heritage Protection) re LNG flares, Gladstone

http://gladstoneconservationcouncil.com.au/web/wp-content/uploads/2015/01/GCC-responseto-Jon-Black-CTS31275-14-.pdf

• 8 Jan, 2015 – Doctor says CSG bad for kids, pregnant women (CSG)

http://www.thechronicle.com.au/news/doctor-says-csg-fields-bad-for-kids/2504258/

BRISBANE GP Geralyn McCarron is urging families with young children or pregnant women not to buy lifestyle blocks near Surat Basin coal seam gas fields. Dr McCarron first became involved with coal seam gas research in June, 2012, gathering local anecdotes about headaches, nose-bleeds, gastric issues, pins and needles, rashes and fits. She published a report based on her experience with 113

people, 58% of whom "felt their health was affected by CSG". Queensland Health released its own study in 2013 which Dr McCarron said took information from just 56 people, 13 visited in person.

• Jan, 2015 – NSW Trade & Investment – Mine safety report

http://www.resourcesandenergy.nsw.gov.au/__data/assets/pdf_file/0006/540159/NSW-Mine-Safety-Summary-Performance-Report-2013-14.pdf

 19 Dec, 2014 – Transpacific fined for dumping CSG fracking water from AGL site in Newcastle sewer

http://www.abc.net.au/news/2014-12-19/company-fined-for-dumping-csg-fracking-water-fromagl-site-in-n/5978776

Hunter Water says in October it refused an application from waste contractor, Transpacific to discharge treated flow-back water from the AGL site. But it says it recently became aware that Transpacific had discharged a prohibited substance into the sewer system from its treatment site on Newcastle's Kooragang Island. The company has since been penalised \$30,000 and warned that any further breaches would result in the termination of its commercial agreement with Hunter Water.

• 18 Dec, 2014 – GCC request for information Andrew Powell re Gladstone LNG Flare

http://gladstoneconservationcouncil.com.au/web/wp-content/uploads/2014/12/GCC-requestfor-information-Andrew-Powell-LNG-Flare.pdf

• 24 Nov, 2014 - Why the earth rumbles at Hopeland: coal seam gas

http://www.lockthegate.org.au/why_the_earth_rumbles_at_hopeland_coal_seam_gas

A serious explosion at a water bore in Queensland shows farmers and communities should be very concerned about coal seam gas, despite government and industry reassurances to the contrary. Shay Dougall of the Hopeland Community Sustainability Group said a water bore at Hopeland, near Chinchilla on the Western Downs let out a loud bang about 6.30 on Thursday (Nov. 20). She said a huge gush of water and gas spouted metres into the sky and continued to release water for another day. There is a thin white crust around the bore, the eerie sound of gas rushing out of it and a sideto-side movement to the casing. Mrs Dougall said the bore had been disused but stable for at least 30 years. The bore is in the Walloon coal measures on prime agricultural land. The property where the bore is located is on an Arrow tenement but Origin is the coal seam gas company with a gasfield about 10 kilometres away. **"In 2008 we saw one water bore blow out at Hopeland, another in 2010 and in 2012 the Condamine River started bubbling.** "These events are occurring because of the coal seam gas activity in the area but all we hear from the companies and the government is spin.

• 24 Nov, 2014 - Queensland's CSG compliance unit investigating bore 'blow out' on the Western Downs

http://www.abc.net.au/news/2014-11-24/bore--blow-out-investigation/5914126

Queensland Government officials are investigating whether a water bore 'blow out' on a Western Downs farm is related to coal seam gas production in the region. The CSG compliance unit is assessing

the cause of an eruption of water and gas from the bore, on a property near Chinchilla, which occurred on Thursday afternoon. The Queensland Minister for Natural Resources and Mines, Andrew Cripps, says departmental staff are monitoring the bore's condition. "On inspection, the bore [casing] was shaking and there was an audible sound of gas escaping from the bore," he said.

• 23 Nov, 2014 - Coal seam gas report on Santos site kept secret by Environment Protection Agency

http://www.smh.com.au/nsw/coal-seam-gas-report-on-santos-site-kept-secret-by-environment-protection-agency-20141120-11r4cc

The Santos site report revealed no groundwater monitoring was taking place at the Wilga power station site, the air pollution testing was not using prescribed methods, and "the reliability of any results obtained would not be assured". The documents show that the EPA gave Santos several days' warning of the upcoming audit - a move the EPA knew would be of "interest to the media", according to internal EPA documents. The reason stated was the remote location of the site. Leaks from Narrabri water holding areas known as the Tintsfield Ponds were identified. The report said water quality monitoring showed elevated levels of total dissolved solids, electrical conductivity, and some heavy metals including uranium, boron and barium. A cleanup notice was not issued until July 2014 and revealed holes in pond liners had been identified back in 2012.

• Nov, 2014 – CSG study finds elevated methane levels near gas fields

http://www.smh.com.au/business/carbon-economy/csg-study-finds-elevated-methane-levelsnear-gas-fields-20141118-11pj90

Those findings have now been published in the Water, Air and Soil Pollution journal. "It's exactly the same data that we presented then," said Damien Maher, a researcher at the SCU's Centre for Coastal Biogeochemistry Research, and one of the paper's authors. Methane triples. Deploying sensitive equipment, the researchers travelled hundreds of kilometres through the Tara gas field and an exploration field in Casino in northern NSW to gather air samples. The results found methane levels as high as 6.89 parts per million, or more than triple the background levels of about 1.8 ppm. Carbon dioxide levels reached as high as 541 ppm, or approaching a 50 per cent increase compared with general conditions. Dr Maher said the research could not identify the source of the higher methane levels although the chemical fingerprints – specifically the isotope of the gas – matched that of the CSG being produced from the field.

• 13 Nov 2014 – UNNAMED CSG COMPANY NEAR DYSART FINDED \$65000

Between 2009 and 2012, an unnamed CSG company contravened a condition of its environmental authority by constructing and operating three CSG wells and a dam within a regional ecosystem with a 'Biodiversity Status' listed on the Department's Regional Ecosystem Description Database (the 'REDD') as 'endangered'. 4 Charges. Fined \$65000.

https://www.ehp.qld.gov.au/management/compliance/pdf/pb-1-2015.pdf

• 21 Oct, 2014 – George Bender, farmer, loses water bores due to CSG. Water reforms favour industry over farmers.

http://www.lockthegate.org.au/lock_the_gate_questions_preferential_water_rules_for_mining

Coal seam gas operators in the Surat Basin already enjoy this unlimited entitlement and local bore owner, George Bender has seen the effect of large-scale removal of water by companies that are not required to adhere to water planning limits.

Mr Bender, a Chinchilla cotton farmer, is about to lose two of his precious underground water bores that are being sucked dry by coal seam gas industry activities.

His bores are among 85 in the Walloon Coal Measures that are predicted to run dry by mid next year as a direct result of the CSG industry. The gas companies want to put up to 18 gas wells on Mr Bender's land. A further 528 bores will also be impacted in the longer term.

"We'll be living in a gasfield, it's as simple as that," he said. "The cards seemed stacked in favour of the resources industry with landholders left to suffer the impacts of coal seam gas exploration and mining with little recourse and few rights.

"You've got to agree to their terms or else. I reckon it's just all one-sided for the resources companies. It will completely interfere with the running of the property but that doesn't seem to matter as long as they get wells in and get the gas out of the ground."

• 16 Oct, 2014 - Why the QCLNG flare flame is so big

http://www.gladstoneobserver.com.au/news/flaring-only-temporary-bechtel/2486330/

IT'S visible from Tannum Sands and even as far away as Seventeen Seventy, but a Bechtel spokesperson was keen to reassure Gladstone residents the large flame at the QCLNG site on Curtis Island is not a permanent fixture of the city's skyline. "The flare will typically be smaller, smokeless and more consistent in luminosity when the plant is operating and producing LNG for export," the spokesperson said. "The composition of the gas currently being burnt at QCLNG is predominantly methane - or natural gas - as well as a small quantity of nitrogen."

• 8 Oct, 2014 – Chief Scientist CSG report leaves health concerns unanswered

http://theconversation.com/chief-scientist-csg-report-leaves-health-concerns-unanswered-32422

The long-awaited independent review of coal seam gas (CSG) in New South Wales, released last week by the NSW Chief Scientist, highlighted many risks and uncertainties around human health from exposure to toxic CSG chemicals. Despite this, the report concludes the risks can be managed through unprecedented regulation and monitoring. **But major health concerns remain unresolved**. These include regulatory inadequacies, cumulative chemical and mental health risks, safety breaches, and climate change. Hence, the report leaves many health concerns regarding human health effects from CSG activities in NSW unanswered

• 4 Oct, 2014 - CSG means the grass is no greener

http://www.theaustralian.com.au/national-affairs/csg-means-the-grass-is-no-greener/storyfn59niix-1227079554316?sv=43cc918e67298bf117a34c5ecb9dffb

QUEENSLAND cattle breeder Joe Hill admits to a little envy at the limitless water gushing from the Origin Energy pipeline into the large new dam on his neighbour's cropping farm near Miles. In his own 800ha "Wandaloo" on the Western Downs, it hasn't rained much in 18 months and the grey clay plains are parched and cracked. But overriding Mr Hill's desire for drought-time "liquid gold" is a bigger concern that the irrigation water supply may not be pure. **"But this CSG water and what is in it needs to be researched more, and there must be independent monitoring of these treatment plants, because I know from experience that self-monitoring by these multinationals doesn't work," he says. "The danger is that by the time we realise there is a problem and we have irreversible contamination of our land, the environment and our cattle it will be too late and the clean, green reputation of our entire beef industry will be at risk."**

Nb. The CSG dam has breached twice since completion inundating tracts of Mr Hill's property with CSG water. The water has high salt content and contains other impurities not removed by the Reverse Osmosis treatment. Joe Hill speaks at Senate Inquiry:

https://www.youtube.com/watch?v=9YwsnVCyuI8&feature=youtu.be

• 1 Oct, 2014 - Allowing coal seam gas wells on property 'a mistake', Qld farmer says, amid Senate committee inquiry

http://www.abc.net.au/news/2014-10-31/allowing-csg-wells-was-a-mistake-qld-farmersays/5848394

CSG suppliers tempt landowners with "unlimited" water supply. He said that, in 2005, they had no water. "We were at the stage of having to buy water just to bath the kids. The dams were all running dry," he said. Photo: Allan Nothdurft and his wife Narelle have seven coal seam gas wells on their Queensland property. "They said 'how would you like a well [and] all the water you want? We said yeah, bring it on. That was the first mistake I suppose, but I don't think anyone knew about coal seam gas back then."

• Sept, 2014 - Independent Review of Coal Seam Gas Activities in NSW Study of regulatory compliance systems and processes for coal seam gas

http://www.chiefscientist.nsw.gov.au/__data/assets/pdf_file/0006/56913/140930-Final-Compliance-Report.pdf

selected period of time (1 July 2010-30 June 2013). Specifically, the Study looked at two of six Petroleum Production Leases in place at the time; two of 39 Petroleum Exploration Licences; the only Environment Protection Licence held for CSG extraction activities; and a Groundwater Licence.

While some good practices were observed, most notably in the Environment Protection Authority (EPA), some clear findings are that:

- there is a lack of alignment between requirements set out in licences and Government regulatory activity based on legislation
- regulatory capacity is limited in some agencies
- documentation and record keeping is often poor
- management of legacy requirements is limited
- new requirements are introduced without removing or aligning with existing requirements
- there is no clearly articulated whole-of-Government regulatory approach.

In particular, there is a concerning culture of some agencies not requiring or checking evidence to ensure industry compliance.

It is important to note that there is no evidence that the outcomes of mixed levels of regulatory oversight have been serious to date. This observation is supported by the results of available industry audits taken as a set. However, it is clear that some regulators have not been checking that required data and reports are delivered; not reviewing or verifying the material that companies are obliged to provide; not checking operations; and not reviewing or managing conditions which have become outdated or problematic with the passing of time.

Example: "A review of the Wollongong Environmental Sustainability Unit complaint and incident reporting spreadsheet (covering the period December 2011- February 2013 only) identified three incidents. Failure to conduct continuous air emission monitoring as required by EPA licence; leak of up to 1000L of water from a gas well; bubbling occurring around a well site (noting inspection followed and monitoring undertaken). "

• 14 Sept, 2014 – GPC ignored bund wall advice, documents say

http://www.gladstoneobserver.com.au/news/corporation-ignored-key-rock-advice-bund-wallfail/2386275/

THE Gladstone Ports Corporation ignored its approved plans and external advice when it failed to build a rock covering over the geotextile fabric which tore on a bund wall in Gladstone harbour, confidential government documents have revealed. An independent engineer who examined the failure of the Fisherman's Landing bund wall for the Federal Government's review has **revealed the failure to build a rock covering was the key problem that led to sediment leaking through and under the bund in 2011 and 2012.**

• 10 Sept, 2014 – Mixed opinions on major coal seam gas project in Queensland's Bowen Basin

http://www.abc.net.au/news/2014-09-10/qch-arrow-gas-announcement/5733902

I think it will be worse because at least with the coal mines if they need country they buy it off you," he said. "Whereas with the gas they come and park on top of you and you've got to run around everything then." He says the company has made a decision that a pipeline will go through his crops,

creating a logistical problem for his business. "We've asked them to follow the fence-line if they want to go into other areas to collect gas, but nothing has come of that and nobody seems to be able to tell us what's going on."

• 31 August, 2014 – AGL contravene environmental conditions – Penalty Notice

Summary of Notice No	: 3085776183	
Organisation:	AGL UPSTREAM INVESTMENTS PTY LIMITED	
Location:	ROSALIND PARK GAS PLANT	
	MEDHURST ROAD, GILEAD, NSW, 2560	
LGA:	CAMPBELLTOWN	
Catchment:	Sydney Coast & Georges River	
Issue date:	05 Mar 2015	
	Penalty Notice	
Offence date:	31 Aug 2014	
Legislation:	Protection of the Environment Operations Act 1997 - 64(1)	
Offence short title:	Contravene condition of licence - Corporation	
Licence		
<u>Number</u>	Name	Licence status
12003	AGL UPSTREAM INVESTMENTS PTY LIMITED	Issued

22 August, 2014 – Farmer claims CSG companies spreading weeds on southern Queensland properties

http://www.abc.net.au/news/2014-08-23/farmer-claims-csg-companies-spread-weedsonsouthern-qld-propert/5661016

Farmers say coal seam gas companies (CSG) are driving dirty equipment onto their properties and spreading weeds that are destroying their livelihoods. Lawyer Peter Shannon, who represents Mr Leech, said he had recently been inundated with cases of farmers seeking compensation.

• 12 August, 2014 – Unexpected flaring at QCLNG after shutdown

http://www.gladstoneobserver.com.au/news/unexpected-flaring-qclng/2738712/

SMOKE will be seen coming from QCLNG's flare today after an unscheduled shut-down of train two. The company put out a press release at just after 4pm on Wednesday saying the supply of natural gas to Train 2 had been stopped. The flare is being used to evacuate gases from the plants processing systems. The flare itself will be larger and emitting more smoke.

• 8 August, 2014 – Irish workers 'waltz in' on infrastructure rort

http://www.afr.com/markets/commodities/metals/irish-workers-waltz-in-on-infrastructurerort20140807-j75qr

Some of Australia's biggest mining and infrastructure projects are using workers who have gained skilled migrant visas or permanent residency by misleading the government about their employment status. Contractor Murphy Pipe and Civil -repeatedly misled the Immigration

Department to help Irish workers fraudulently obtain visas to work on the Queensland Curtis LNG project and Western Australia's Sino iron ore project. Leaked company files and well-placed sources have revealed evidence of widespread rorting of temporary skilled worker 457 visas and, to a lesser extent, working -holiday visas. Fairfax Media has confirmed the Immigration Department has failed to investigate the fraud, despite being contacted by whistleblowers over the past three years.

• 4 August, 2014 - QGC home buyout 'proof gas, people don't mix'

http://www.thechronicle.com.au/news/qgc-home-buyout-proof-gas-people-dont-mix/2339255/

QGC is believed to have spent more than \$1 million buying properties in the area, many of which have no water or electricity access. Graeme Henderson was arrested in 2011 after chaining himself to a gate to stop QGC vehicles leaving a property outside Dalby. He confirmed his Tara property had sold, but said a confidentiality agreement meant he could not reveal the identity of the buyer.

• 10 July, 2014 – Workers medically cleared after gas detectors triggered

http://www.thechronicle.com.au/news/emergency-services-called-qgcs-kenya-site/2314691/

AN exclusion zone has been set up at a QCG CSG well about 25km south-east of Miles after an incident this morning. A QGC spokesperson said two well-site technicians had been working at the Matilda John site when one of their personal gas detectors was triggered. Both technicians moved away from the site and Queensland Emergency Services, including Careflight, responded. Both technicians had been assessed by a doctor and cleared.

• 9 May, 2014 – Gladstone dredging project inquiry finds conditions on port expansion too vague to be enforced

http://www.abc.net.au/news/2014-05-09/bund-wall-inquiry-finds-gladstone-port-conditions-toovague/5440860

The investigation has found water quality monitoring sites in Gladstone were established in the wrong areas, and the federal Environment Department failed to adequately retain compliance records. It also says environmental conditions imposed by the Commonwealth lacked the specifics necessary to enable their effective enforcement.

• May, 2014 – CSG company fails to tell landowner of radiation

http://www.qt.com.au/news/residents-left-in-dark-coal-seam-gas-radiation/2244686/

JULIE Fairweather simply wants an apology. After the Chinchilla- based landowner discovered QGC workers were exposed to radiation while drilling on her property, she was horrified the company had not informed her. Mrs Fairweather told Chinchilla News a neighbour had called to tell her about the incident the day after it had happened. "There was no phone call, no knock on the door, no email from QGC. I had to hear it through the grapevine," she said. "It's just dreadful, to have this happen on our property, no more than 700m from our home, and not even be told. QGC released an official statement last week confirming four workers were exposed to "low level radioactivity" while on the Montrose Rd property on February 28 this year.

• 29 April, 2014 - Radiation exposure on Chinchilla-based Weatherford CSG rig

http://www.australianmining.com.au/news/radiation-exposure-on-chinchilla-based-weatherford

QGC has only recently revealed to local press a radiation exposure incident that took place near Chinchilla in February (28th). A spokesperson for QGC told the Dalby Herald that four QGC workers were exposed to radiation while involved with gas drilling work. It was reported that the radiation came from a Schlumberger "measurement device". The incident occurred on a drill rig south of Chinchilla which was operated by international oil and natural gas service company Weatherford. QGC said the workers were exposed to a "low level of radioactivity" and medical examinations were performed. QGC said it is still continuing to monitor the health of the exposed workers

• 16 April, 2014 – Santos issued "please explain" over radioactive material in Pilliga NSW

http://www.northerndailyleader.com.au/story/2223585/santos-issued-please-explain-overradioactive-material-in-pilliga/

PROTESTERS have issued Santos a "please explain" after the discovery of radioactive material at its coal seam gas operation in the Pilliga. A bright red box at one of the company's drill sites contains the radioactive isotope Caesium-137, which can be deadly at high exposure levels.- Cs-137 is commonly used in the mining and construction industries to detect liquid flows in pipes, tanks or bore holes dug for coal seam gas exploration. But its uncovering, coming just weeks after it emerged that in 2012 a leaking storage pond resulted in high levels of uranium, barium and other elements in an aquifer, has some worried.

• April, 2014 - Water contamination may be linked to coal seam gas wells (Wallumbilla – Qld)

http://www.westernstarnews.com.au/news/contamination-is-confirmed/2219462/

RESULTS have confirmed the presence of methane gas in the Wallumbilla water supply, following extensive CSG testing by ALS Environmental. In a statement released by Maranoa Regional Council yesterday, Mayor Robert Loughnan said until the source of the gas could be determined and corrective action taken, Bore 2 would remain offline, with Wallumbilla's water being sourced exclusively from Bore 1. "There continues to be no impact to Wallumbilla residents' water supply - we are ensuring that consistent quality water will continue to be available while Bore 2 is offline," Cr Loughnan said. The statement said council had no knowledge of gas being present in water before this instance.

• 29 March, 2014 – Santos Pilliga project: Coal seam gas waste water spillage causes alarm

http://www.smh.com.au/nsw/santos-pilliga-project-coal-seam-gas-waste-water-spillage-causesalarm-20140328-35ong.html

http://www.stoppilligacoalseamgas.com.au/wpcontent/uploads/2011/12/The_Truth_Spills_Out_Final_May_2012_without_appendices.pdf

The Environment Protection Authority is investigating a 500-litre wastewater spill from a coal-seam gas operation at the Pilliga forest in north-western NSW. The waste water was spilt during a transfer from an assessment well to a holding pond at the Santos gas field near Narrabri on Tuesday, the EPA said.

• 8 March, 2014 – Santos coal seam gas project contaminates aquifer

http://www.smh.com.au/environment/santos-coal-seam-gas-project-contaminates-aquifer-20140307-34csb.html

The company failed to report a leak of 10,000 litres of contaminated water from a treatment plant after an electronic switch connected to the pipeline failed. The water was about half as salty as sea water and killed more than 70 per cent of the trees in the affected zone, prosecutor Stephen Rushton SC said. Ms Hogan said it had been up to a local farmer to report the coal seam gas brine spill to the media on 2 January 2012 before any action was taken by Santos

• 28 Feb, 2014 - CSG drilling rig workers in Queensland exposed to radiation by Schlumberger

https://indymedia.org.au/2014/03/05/csg-drilling-rig-workers-in-queensland-exposed-toradiation-by-schlumberger

On Friday 28 February, four Weatherford drilling rig workers at a QGC coal seam gas (CSG) well site near Tara in Queensland were exposed to as yet undisclosed levels of radiation. They handled a radioactive equipment component left at the site by workers from another oil and gas services company, Schlumberger. The radiation source was not shielded and labeled as required by regulation. According to an anonymous source, radiation incident response personnel from the USA have been summoned to the Tara area to investigate and provide support. The health of the four workers is "under observation".

• 20 Jan, 2014 – Fishermen hope federal inquiry dredges up problems in Gladstone Harbour

http://www.abc.net.au/news/2014-05-09/bund-wall-inquiry-finds-gladstone-port-conditions-toovague/5440860

The inquiry follows Tony Moore's breakthrough story for Fairfax Media on the many failings of a bund wall, meant to contain dirty dredge spoil. Local fishermen have blamed the dredging project for a disease outbreak in 2011, which killed numerous fish, turtles, dugongs and other marine life. The state-owned Gladstone Ports Corporation has continually denied this and on Monday, sought to have a compensation claim by the fishermen thrown out of the Planning and Environment Court in Brisbane. The GPC's former environmental manager, John Broomhead, told media last week the design and size of the wall retaining the toxic material dredged up was a failure. He said the wall started to leak in August 2011 and contributed to elevated turbidity in the harbour.

• 14 Jan, 2014 – Whistleblower claims harbour bund wall is still leaking

http://www.gladstoneobserver.com.au/news/claims-gladstone-harbour-bund-wall-stillleaking/2140058/

A FORMER Gladstone Ports Corporation employee has claimed the bund wall built to contain dredge spoils from work associated with the Curtis Island LNG projects is still leaking and could cost as much as \$50 million to fix. Former GPC environment manager turned whistleblower John Broomhead has told The Australian the wall is not fixed, after speaking out about issues surrounding the wall's construction. "This thing is so hollow and the geotextile fabric against the wall so poorly installed it is going to continue to erode," Mr Broomhead said.

• 9 Jan, 2014 - Santos fined \$52,500 for NSW pollution breach

http://www.abc.net.au/news/2014-01-10/santos-fine/5194320

The NSW Land and Environment Court has fined coal seam gas explorer, Santos, \$52,500 for a spill of contaminated water in the Pilliga State Forest in the state's north west. Last December Santos pleaded guilty to charges including the 'failure to report a spill incident that threatened material harm to the environment and failures to accurately report compliance against petroleum operations plan'

• 26 Dec, 2013 – Gladstone port plea to stem toxic leak

http://www.theaustralian.com.au/news/health-science/gladstone-port-plea-to-stem-toxicleak/story-e6frg8y6-1226789797130

GLADSTONE Ports Corporation was forced to seek urgent permission to breach its environmental approvals in a race to plug a leaking bund wall before it ran out of space to store potentially toxic acid sulphate soils from dredging associated with the \$33 billion Curtis Island LNG export terminals. Gladstone Ports has consistently denied the leaking bund wall was responsible for a collapse of fish health in the harbour in late 2011. A series of investigations has blamed the poor harbour health on record flooding early in 2011. But documents show the Ports Corporation was aware of the extent of the environmental threat posed by the bund wall failure. GPC expressed concern about the "reputational issues" reporting of the bund wall failure and poor water quality posed for the project.

• 18 Dec, 2013 – Santos faces fines for Pilliga coal seam gas salt spill

http://www.smh.com.au/environment/santos-faces-fines-for-pilliga-coal-seam-gas-salt-spill-20131218-2zkob.html

Gas giant Santos' NSW branch could be slapped with hundreds of thousands of dollars in fines after it admitted to failing to report contamination and excessive salt levels at a drilling site in the state's northwest. Santos NSW has pleaded guilty to four charges relating to failures by the site's operator, Eastern Star Gas, to report contaminated water leaks and lodge environmental management documents, the NSW Land and Environment Court heard on Wednesday.

• 25 Nov, 2013 - Enough to make you sick

http://www.echo.net.au/2013/11/enough-to-make-you-sick/

Dr Somerville said that many of the chemicals used in CSG mining have health impacts, even in minute quantities. 'Volatile organic compounds can cause eye, nose and throat irritation, headaches, dizziness, respiratory distress, visual disorders, memory impairment, loss of coordination, nausea and damage to liver, kidney and the central nervous system. Some can cause cancer and other irreversible health side effects. 'Radium is a very toxic carcinogen that is associated with bone, liver and breast cancer. Radon is a decay product of radium, and is the leading cause of lung cancer among non-smokers.' Dr Somerville listed further compounds that have adverse health impacts, saying that even exposure to minute quantities of chemicals is enough to disrupt the nervous and endocrine systems. 'The damage may not be evident at the time of exposure but can have unpredictable delayed lifelong effects on the individual and/or their offspring and may last generations,' he said.Of concern to Dr Somerville is that children are more vulnerable than adults.

• 21 Nov, 2013 – Big stink at Kogan

[Nb: QCL link returning an "Internal Server Error"]

Big stink at Kogan - Queensland Country Life www.queenslandcountrylife.com.au/news/agriculture/.../2679137.aspx ▼ Nov 21, 2013 - IN A few months, Ipswich-based business NuGrow hopes to be ... Brian Monk, Iona, Kogan, with a letter from NuGrow, is far from happy about ...

Full Text (reproduced below) found here: http://www.springhillvoice.com/22november2013.html

"In A few months, Ipswich-based business NuGrow hopes to be spreading waste from CSG drilling and mining camps on the paddocks of its newly acquired Kogan property, Iona Park, and Brian Monk is far from happy. That's because Mr Monk's 2000-hectare beef property, Iona, sits across the road from the 513-hectare Iona Park, and Mr Monk is full of fears about what the proposed project will bring to the area. NuGrow's proposal is to blend CSG waste waters, mulched green waste, liquid and solid food waste, treated and untreated effluent, biosolids and manures prior to spreading them on cultivated ground on Iona Park.

While NuGrow is certain it has all the boxes ticked prior to the project receiving Queensland Government approval, Mr Monk is not so sure. He says he believes the soil conditioner or compost made from CSG waste will be saline and could contain harmful elements that will not be detected prior to the mix being spread on Iona Park's paddocks. And when a serious flood comes, Mr Monk fears NuGrow's compost will become his contaminant. "When it hits Montrose Road, the water's 18 inches deep and 2km wide. That's what I said to NuGrow. It's going to be my problem," Mr Monk said. However, Peter Thompson, NuGrow's environmental compliance manager, said NuGrow would be constructing contour banks around the 10ha trial sites on Iona Park and discounted the neighbour's worries. "Our site will be a non-release site so that any run-off will go into an on-site dam," he said.

A letter from NuGrow to Mr Monk and his wife Carolyn about the "proposed pasture improvement project", dated October 24, was the first the couple knew about what was planned for across the road. It invited them to a November 7 meeting at Kogan Community Hall, where Mr Monk came away with more questions than answers. "What about biocides and polonium and uranium? Will they be testing for that?" Mr Monk said. "When they are drilling for CSG, they are drilling through structures with naturally occurring radioactive material. Have they thought of that?" Mr Thompson says he believes they have. "Prior to us accepting any waste stream, including CSG waste waters or effluent, we'll require the producer to supply a lab analysis," he said. That analysis would be monitored to ensure it met government-set criteria – and NuGrow was no stranger to the process. NuGrow already accepts drill waste at its Gracemere facility near Rockhampton, and organic liquid waste at other sites, including Swanbank near Ipswich, which is used in compost mixes. The company is currently negotiating with parties that have CSG drill water and other wastes close to Kogan they need to offload, and Mr Thompson said any waters would be put through the Delta water treatment system to ensure it was not excessively saline. "There is food waste and effluent coming from camps and we've come up with the solution to use it for agriculture instead of it going to landfill," Mr Thompson said. But Mr Monk has little faith in the Delta process for desalination. "All they're doing is hiding a large amount of salt." "They are somehow avoiding calling it toxic waste by rebranding it as beneficial waste," said Mr Monk, an outspoken opponent of the CSG industry. NuGrow will be paid by drillers, mining-camp operators and others to remove the waste. "This industry stinks," Mr Monk

said. "The water is their enemy and they want to dump megalitres of it every day." But NuGrow sees the project simply as a means of using waste to benefit the depleted soils of the Western Downs. Pending Department of Heritage and Environment Protection approval and under the Waste Reduction and Recycling Act 2011, **NuGrow hopes to reclassify the wastes it takes in for the project as beneficial resources, rather than regulated wastes. That means it will then be able to spread for agricultural use.** Under the proposed plan, collected wastes will be blended at Iona Park prior to being spread in windrows for regular turning to ensure odour-minimising aerobic conditions. It will then be applied to paddocks which have been cultivated to a depth of 50mm. NuGrow will be required to work the product into the paddocks in a time frame, more likely to be hours rather than days, prior to planting of dryland crops."

Related links:

http://zambellienvironmental.com.au/kogan-multiple-beneficial-use-approval.html

http://www.coal-seamgas.com/pdf/approval%20of%20resource%20for%20benefical%20use%204443%20att.pdf

• 1 Nov, 2013 – Fishermen claim dredging impact covered up by GPC

http://www.gladstoneobserver.com.au/news/claims-of-dredging-cover-up/2070489/

CLAIMS of a cover-up over Gladstone's massive dredging project could be key to a fishing industry class action against Gladstone Ports Corporation. Fisherman Trevor Falzon is leading the class action, which includes more than 20 fishermen, crabbers and trawlers who want more compensation for alleged lost fishing grounds. It's the second case fishers have brought against the port, claiming they weren't adequately compensated for the Western Basin Dredging and Disposal Project. Mr Falzon said the latest case could include revelations of what he called a "cover-up". He claimed information about the environmental effects of the project had been hidden from regulators. But a port corporation spokeswoman maintained no environmental information had been withheld from state or federal authorities. Mr Falzon alleged a report about a leaking bund wall was kept under wraps for more than a year, before being released two weeks ago.

• 22 Oct, 2013 - Qld farmers lose bore water following CSG extraction

http://coalseamgasnews.org/qld/qld-farmers-lose-bore-water-followimg-csg-extraction/

COL and Marcia Davis' Chinchilla property is in what you might call an awkward position. It comes under Arrow Energy's tenure in one half and Origin's on the other, and its boundary sits 600m outside the 'magical' cumulative management area (CMA) boundary as identified by the Surat Underground Water Impact Report. That means its failing groundwater supply is a priority only for the Davises, who run 1500 cattle and a piggery. "We've got surface water at the moment because the Wambo Creek got a flood in January-February, and seepage out of the banks is keeping it going, but we're in a position that we'll be looking for water within the next two to three months," Mrs Davis said. Wamba, which has been in Mr Davis' family for more than a century, had an unfailing supply of bore water until 2008, when gas started to severely impact on two bores. "We've got seven bores and six are in the Walloons," Mr Davis said. "The one that isn't, we're having no problems with, because it's shallower than the others." However, they did have a "big problem" with the main bore, which was 162 metres deep. "The two main bores we can't pump out of anymore because they've got that much gas in them that the impellers or the mono rotor kits burn out," Mr Davis said. **The couple said gas levels in their** bores had become worse in the past 18 months, and Origin had agreed to replace a bore. "They've said they'll do it in two years, but we'll need it before then," Mr Davis said.

• 12 Sept, 2013 – CSG behind Cancer cluster MP – (Govt. reject this assessment)

http://www.myresources.com.au/news/17-othernews/8758-csg-behind-cancer-cluster-mp

Three people who live near coal seam gas activities in southern Queensland have contracted terminal cancer, and one of them has since died, a state MP says. Katter's Australian Party member for Condamine Ray Hopper told parliament on Wednesday the residents live within four kilometres from a coal seam gas (CSG) evaporation pond in his electorate. All three have been diagnosed with pancreatic cancer, he says. "Sadly, one person has died and the two others have been given just months to live," he said. He called for Health Minister Lawrence Springborg to launch an investigation into whether CSG mining is linked to the cancer cluster. But Mr Springborg rejected the suggestion that the CSG pond had anything to do with the illnesses. (No independent investigation is carried out to support Mr Springborg's assertion)

• 12 Sept, 2013 - Katter MP wants probe into CSG links to cancer cluster

http://www.thechronicle.com.au/news/katter-mp-wants-probe-csg-links-cancercluster/2018180/

Ducklo resident Luigi Morrison, one of three people diagnosed with prostate cancer living near a coal seam gas evaporation pond, said he is right behind Ray Hopper's call for an investigation into the cases. He said while his specialist had told him a link between coal seam gas activity and his pancreatic cancer would be "difficult to prove", he believed the evaporation pond's proximity and chemicals in the water were part of the cause. "It would be a major coincidence," he said.

• 2 Aug, 2013 – Flooding, not dredging, caused sick fish in Gladstone harbour (according to Govt.)

http://www.gladstoneobserver.com.au/news/flooding-not-dredging-caused-sick-fish-gladstone/1969391/

A FINAL (Govt) report on sick fish in Gladstone Harbour says flooding - not dredging - was the main cause of the problem. The report says flooding, combined with large numbers of fish being washed over the Awoonga dam, stressed the ecosystem in the harbour and adjacent waterways. The study, released on Friday, couldn't rule out the possibility that dredging and associated turbidity provided additional stress to the ecosystem, but it was not the primary stressor. The report was put together by an independent panel of investigators appointed by the State Government to investigate concerns about sick fish in the waterway. However, a separate report just released by veterinary scientist Dr Matt Landos shows levels of marine life disease around the harbour are much greater than previously thought. Dr Landos' data revealed 39% of mud crabs collected around Gladstone harbour tested positive for distinctive rust spots that indicated shell disease from ingested metals such as copper and aluminium. The Guardian Australia reports his results show that instances of shell disease soar in locations close to the Western Basin Dredging and Disposal project.

• 14 July, 2013 - 200m of steel drill pipes blown into air in July CSG mishap (Metgasco)

http://www.northernstar.com.au/news/a-dangerous-incident-that-occurred-during-thedeco/2033819/

http://www.resourcesandenergy.nsw.gov.au/__data/assets/pdf_file/0004/474610/Drill-stringejected-from-gas-well.pdf

A DANGEROUS incident that occurred during the decommissioning of one of Metgasco's gas wells near Casino in July is the subject of an inquiry by the NSW Mine Safety Investigation Unit. On July 14 this year six Metgasco workers were placed into a "very high" risk situation during the shutdown operation of the Kingfisher E01 well on the outskirts of Casino, when 200m of steel drill pipes shot out of the well without warning.

• 25 June, 2013 – Saxon Energy denies claims of lax safety at Fairview

http://www.westernstarnews.com.au/news/saxon-energy-confirms-worker-has-died-fairview/1920803/

SAXON Energy has denied claims lax safety standards led to the death of a 21-year-old on site at Fairview gasfield on Sunday. A company spokesperson said all operations on site complied with Queensland Safety regulations. This company denial came after a source, who wished to remain anonymous, told the Western Star the incident was avoidable. "(The) issue was a known danger that nearly killed someone else," the source said. "We have unqualified, under-experienced men on all out rigs... anyone that comments gets fired."

• 23 June, 2013 - Rig floor incident on Saxon Rig 185 in the Fairview field in Queensland, which tragically resulted in a fatality

http://indaily.com.au/business/2013/07/19/santos-cuts-guidance-after-setbacks/

• 28 May, 2013 – Health of Tara residents comes first: Toowoomba Bishop

http://www.thechronicle.com.au/news/health-tara-residents-comes-first-toowoombabishop/1884740/

THE health of people living on the Tara residential estates needs to be put before the economic benefits of coal seam gas production, says Catholic Diocese of Toowoomba Bishop Robert McGuckin. "Every effort needs to be made to ensure that the extraction of coal seam gas and related activities does not impact negatively on the people on the Tara Residential Estates, particularly the health of children," he said in a statement released today. "Economic benefits to the area from mining must not be at the sake of the community's health and wellbeing - particularly of local children."

• 6 May 2013 – Great Barrier Reef in danger according to UN report

http://www.sunshinecoastdaily.com.au/news/great-barrier-reef-danger-according-unreport/1855970/

THE State Government is convinced it will avoid the Great Barrier Reef being deemed under threat by United Nations' environmental arm after UNESCO raised concerns in a new report. The group gave some praise to both the Queensland and Federal Government but warned that with up to 43 proposed

developments along the coastline of the reef, UNESCO would still recommend the reef's status be listed as "in danger". To avoid this, both levels of government must act before February 1 next year.Queensland Environment Minister Andrew Powell said the LNP government was already reviewing Gladstone Harbour and putting together a ports strategy - two issues highlighted in the report.

• 9 May, 2013 – Report details health concerns for residents affected by CSG

http://www.thechronicle.com.au/news/report-details-health-concerns-residents-affected-/1862076/

She said that in dealing with the community, she had concerns children could be experiencing damage to their nervous system, as some reported sensations of numbness and pins and needles. "In my suburban practice, that's not something I would see in people of that age group," Dr McCarron said. "My feeling is that people's concerns for their health have substance. "There needs to be an intensive investigation to find out what's going on." She said the **government research from Dr Keith Adam - a specialist in environmental medicine - and the Darling Downs Public Health Unit was not sufficient.**

• 1 May, 2013 - GP fears for health of gasfield residents - Independent health survey highlights need for better understanding of coal seam gas health impacts.

http://dea.org.au/news/article/media-release-gp-fears-for-health-of-gasfield-residents

A report released today by Brisbane general practitioner Dr Geralyn McCarron highlights the need for further investigation of the health impacts for people living in a coal seam gas (CSG) field. Dr McCarron has been communicating with affected residents of the Tara estates in SE Queensland who believe their health has been adversely affected by pollution from CSG activities near their homes. **She was highly dissatisfied with the adequacy of the recent Queensland Government report** and so undertook her own survey of health complaints. The report Symptomatology of a gas field describes interviews with 38 households, encompassing 113 people. Over half of residents surveyed reported that their health has been adversely affected by CSG activities.

• 30 Apr, 2013 – Petroleum (Onshore) NSW - 29 safety incidents shown for period 2002 - 2013

http://www.resourcesandenergy.nsw.gov.au/___data/assets/pdf_file/0011/499736/NSW-Mine-Safety-Performance-Report-2012-13-Final-140120.pdf

	4.4 Pet	troleum	(On:	shor	e) Ind	cider	nts								
	Petroleum in recorded in							etrole	um (C	Onshor	re) Scl	nedule	9 1992	2 and	
	Note that pr reportable in NSW Trade	ncidents th	nat we	re noti	fied to	the W	/orkCo	over A	uthori	ity and	not a			to	
	Also, severa including the and renewa has slowed Regional La 4.4.1 Pet	e NSW Go Ils of existi down in re and Use Po	overnn ing exp espons olicy.	nent in ploratio se to th This re	nposed on lice he drat educed	d mora nces. fting a d activ	atoria d In add nd del ity is r	on frac lition, lay in f reflecte	ccing, the le the im ed in t	granti vel of o pleme the saf	ng of coal so ntatio ety sta	explor eam g n of th atistics	ation as ex e Stra s.	licence ploratio	
	Figure 51	loleum	Ulisi	lorej	men	Jents	Бруп	nciu	5111 11	IVESI	iyati		5461		
	Petroleum (C	Onshore) Inc	cidents	by Inc	ident li	nvestig	ation L	evel 2	002-03	3 to 20	12-13				
	Investigation Le	vel 2	2002-03 2	2003-04 2	2004-05 2	005-06 2	006-07 2	007-08 2	008-09	2009-10 2	010-11 2	011-12 2	2012-13	Total	
	Level 1 - No need Mine to investigate		2	12	54 1	-	3	243	543	5	1	343	(120)	9	
	Level 2 - Official to		-		-	-	-	-	4	6	5	1	2	18	
	Level 3 - Detailed						_			1			-	1	
	suitable for further	r action		6.2	100	121	5255		10701				0.0272	1 A 1	
	C. A. C. A. S. A.	action			2		-								
	No Data	action	-	1	10	-	-	-	-		-	-	-	1	
	No Data Total	action	-	1	-	-	-	-	-	- 12	6	1	- 2	1 29	
etroleu	No Data Total) Incident	ubtype	1 ncider 2002-03			l Subt		:002-(- 12 03 to 2	2012-	13			Tota
etroleu	No Data Total 66 m (Onshore	P) Incident St POAsch19 potentially h event	ubtype 92 Cl 304 hazardous	1 ncider 2002-03			l Subt		:002-(- 12 03 to 2	2012-	13		29	
etroleu	No Data Total 66 m (Onshore	P) Incident Su POASoh19 potentially h event POASoh19 301(2) deat serious inju	ubtype 92 CI 304 nazardous 92 CI th or ry	1 ncider 2002-03			l Subt		:002-(- 12 03 to 2 2008-09	2012-	13	2011-12	29	1
gislation tegory	No Data Total 66 m (Onshore	P) Incident St POASch19 potentially h event POASch19 301(2) deat	ubtype 192 CI 304 192 CI 192 CI th or 192 CI 192 CI 194	1	2003-04		l Subt	2006-07	:002-(- 12 D3 to 2 2008-09 1	2012-	13 2010-11 4	2011-12	29	1
gislation ttegory POASch	No Data Total 66 m (Onshore Incident Type POASch 1992	e) Incident Si POASch19 potentially h event POASch19 301(2) deat serious inju POASch19 306(1)(c) uncontrolled or ignition o petroleum, flammable combustible or toxic che causing pot hazardous Total	ubtype 92 CI 304 92 CI th or ry 92 CI d escape f or e material verticals tentially situation	1 2002-03	1	2004-05	2005-06	2006-07	:002-(- 12 D3 to 2 2008-09 1 2 1 4	2009-10	13 2010-11 4 1 1 6	2011-12	29	11
gislation tegory POASch N/A	No Data Total 66 m (Onshore Incident Type	Incident St POASch19 potentially h event POASch19 301(2) deat serious inju POASch19 306(1)(c) uncontroller or ignition o petroleum, flammable combustible or toxic che causing pot hazardous	ubtype 92 CI 304 92 CI th or ry 92 CI d escape f or e material verticals tentially situation	1 2002-03	1	2004-05	l Subt	3	2007-02	- 12 D3 to 2 3 2008-09 1 2 1 1	2012- 2009-10 8 3 1 1 12 -	13 2010-11 4 1 1	2011-12	29 2012-13 1 - -	11

contractor

http://www.qgc.com.au/media/250265/qgc_non-compliance_allegations_5_april_2013_.pdf

[Nb. Unable to locate any related media article on this subject]

• 1 April, 2013 – Gas Leak! Four Corners

http://www.abc.net.au/4corners/stories/2013/04/01/3725150.htm

But why weren't these problems picked up in the development approval process? The answer is simple: according to one insider, the approval process is significantly flawed. Four Corners reveals what really happened when two major companies applied to develop thousands of square kilometres of southern Queensland for coal seam gas. Using hundreds of pages of confidential documents, the program reveals that the companies didn't supply enough basic information for an informed decision to be made about environmental impacts. Despite this, various government agencies permitted the developments to go ahead, allowing the companies to submit key information at a later date. A decision which shocked some who were involved: "*It was quite frightening that they would consider approving such a project without the basic information that a normal mining project would have been asked to submit, given that this was like six hundred times the size of your standard, large mine."* This same insider claims pressure was applied to the bureaucracy to fast track approval for coal seam gas development. This allegation would deeply concern many farmers who have seen their land used for coal seam gas sites and raises significant concerns about the future expansion of the industry across Australia.

[QGC Response: http://group1403.rssing.com/browser.php?indx=5398583&item=67]

• 28 March, 2013 - QGC response to questions asked by the ABC in relation to upcoming program, Gas Leaks!

http://www.abc.net.au/4corners/documents/CSG2013/QGC_response.pdf

• 26 March, 2013 – Santos pollute water – Infringement Notice

Summary of Notice No: 3085773240 Organisation: SANTOS NSW (EASTERN) PTY LTD Location: Bibblewindi Water Transfer Facility X Line Road, NARRABRI, NSW, 2390 LGA: NARRABRI Catchment: Namoi Issue date: 11 Feb 2014 Penalty Notice Offence date: 26 Mar 2013 Legislation: Protection of the Environment Operations Act 1997 - 120(1) Offence short title: Pollute waters - Corporation

• 11 Dec, 2012 - Santos Gladstone LNG fined for late reporting of oil spills

http://www.qt.com.au/news/santos-gladstone-Ing-fined-late-reporting-oil-spil/1655655/

THE company behind one of Queensland's massive gas projects, Santos Gladstone LNG, was fined nearly \$20,000 for the late reporting of oil spills and other breaches of environmental approval conditions in the Great Barrier Reef World Heritage Area last year. The fines totalled \$19,800 and were related to the company's late reporting of five minor oil spills and two increases in turbidity levels near the Curtis Island site in the World Heritage Area (WHA).

• 22 October, 2012 – Land Holder Taking Water Fight to Santos

http://www.nvi.com.au/story/405991/landholder-taking-the-water-fight-to-santos/?cs=382

Mr Pickard reports that the sodium content in the water samples is actually 1030 ppm (parts per million) and the pH of the ponded water is 9.93, while the sodium content in the soil at Bohena 7 is 17200 ppm, with a pH of 11.2. "Another point to look at is the Sodium Absorption Ratio (SAR) is 200 in the ponded water," he said. "Rain water has an SAR between 1 and 2 at its worst, with bore water generally slightly higher. "Bore water for domestic use in the area (my house bore sampled 16.5.2012) was 2.6 and on 27.6.2012 was 2.97," he said. "When you get a SAR in water of four (4) you know you are in trouble... twenty (20) is desert. The native wildlife do not drink this water and live and the water is not conducive to plant and tree growth or survival either. He says, however, that the biological activity in the water tells the most compelling argument, citing astronomical counts of sulfate reducing and hydrocarbon utilising bacterias.

• 18 October, 2012 – Family fights for compensation for well site

http://au.news.yahoo.com/thewest/regional/countryman/a/-/news/15144422/family-fights-forwell-site-compo/

As a fruit and vegetable producer, Mr Copeland said he was losing substantial income from the existence of the well site. "If I put zucchinis into the 9000sqm area this year I would have made in excess of \$80,000 gross," he said. "If I planted rockmelons there in April to May 2012 I could have made in excess of \$80,000 for the price we were receiving at that time. "This is providing the site had been property rehabilitated and soil nutrients lifted to the appropriate levels for our industry." AWE was contacted for comment but a spokesman said the company was unable to respond because the matter was before the court.

• 17 Oct, 2012 – THE NARROWS – CLEARING - FAILURE TO NOTIFY – FAUNA DEATHS/INJURY

QGC did not meet the requirement to notify DEHP of injuries and deaths to fauna within the 24 hour period required under the species management plan.

http://www.qgc.com.au/media/216670/07-12-12_annual_return_-_pipelines_final_-_published_document.pdf

• 27 Sept, 2012 – THE NARROWS – WATER QUALITY LIMITS EXCEEDED

http://www.qgc.com.au/media/216670/07-12-12_annual_return_-_pipelines_final_-_published_document.pdf

On 27 September 2012, QGC "became aware" that the total suspended solids (TSS) water quality limit specified in the EA was exceeded on 20 February 2012. Field testing of water quality undertaken prior to the release of water indicated that the water met the TSS limit prescribed in the EA. Laboratory testing of the water samples found a TSS value of 82 mg/L compared to the EA prescribed limit of 30 mg/L. No response has been received by SEWPaC in relation to the non-compliance.

• 22 Sept, 2012 - NARROWS SECTION OF THE PIPELINE FAIL TO PROPERLY UNDERTAKE REQUIRED WATER QUALITY TESTING & SEND RELEVANT SAMPLES TO LABORITORY

http://www.qgc.com.au/media/216670/07-12-12_annual_return_-_pipelines_final_-_published_document.pdf
QGC "became aware" on 22 September that water quality testing, Between October 2011 and September 2012, of all the parameters required under the EA was not undertaken for each sampling event and that not all relevant samples were tested by a NATA certified laboratory

• 20 Sept, 2012 – Gladstone Dredging

http://www.abc.net.au/catalyst/stories/3593812.htm

Mark Horstman explores the environmental consequences of a large dredging project at Port Curtis harbour in Gladstone Queensland.

• 18 September, 2012 – QGC – ILLEGAL CLEARING OF VULNERABLE FLORA

http://www.qgc.com.au/media/216667/07-12-12_annual_return_- gasfields_final_-_published_document.pdf

Approximately 15 to 20 plants known as Philotheca Sporadica and listed as vulnerable under the Nature Conservation Act (Qld) 1992 had been cleared in the area located at David Block without an appropriate clearing permit. The clearing permit WICL11772912 was (retrospectively) issued on 30 November 201 and authorises the clearing of Philotheca Sporadica in the area where the incident happened

• 12 September, 2012 – Gas Company (AGL) illegally emitting acid rain compounds for 3 years

http://au.news.yahoo.com/video/national/watch/26473248

AGL found for 3 years have been <u>pumping 30% more Sulphur Oxide</u> into air than environmental limits allow. Also found to be exceeding limits for hazardous waste stored on site.

• 4 September, 2012 – Farmers and environmental groups blast new gas industry ad that claims coal seam gas is safe for groundwater – (APPEA)

http://www.couriermail.com.au/news/farmers-and-environmental-groups-blast-new-gasindustry-ad-that-claims-coal-seam-gas-is-safe-for-groundwater/story-e6freon6-1226464606972

http://www.news.com.au/breaking-news/national/csg-ad-criticised-for-false-claims/storye6frfku9-1226464941206

<u>Deceptive advertising by APPEA</u> claims that CSG is safe for groundwater. A PRO-COAL seam gas (CSG) television advertisement has falsely claimed Australia's national science agency believed groundwater was safe from contamination by CSG mining, CSIRO says. The Australian Petroleum Production and Exploration Association (APPEA) authorised the television ad that aired on Network Nine at the weekend. The ad claimed CSIRO believed groundwater was "safe from coal seam gas" activities. <u>CSIRO has rejected the claims</u>. "At no time has CSIRO made such a statement, and nor do the results of CSIRO research support such a statement," a spokesman said in a statement.

• 4 September, 2012 - CSIRO wants ads pulled as coal seam gas industry claims rejected

http://www.coastaltimes.com.au/news/national/national/general/csiro-wants-ads-pulled-ascoal-seam-gas-industry-claims-rejected/2658104.aspx

• 1 Sept, 2012 - On 1 September 2012, a crew member on Rig 6, Kathleen 23 noticed diesel spilling from the transfer pump located in the back of the fuel truck. The transfer pump was immediately shut off which stopped the spill (QGC)

http://www.qgc.com.au/media/216667/07-12-12_annual_return_-_gasfields_final_-_published_document.pdf

• 21 August, 2012 - The Narrows Crossing Dredge Management Plan QGC was not published on the website within 30 business days of approval by the Minister. The plan was published on the website on 20 November 2012

http://www.qgc.com.au/media/216670/07-12-12_annual_return_-_pipelines_final_-_ _published_document.pdf

• 20 August, 2012 – Dalby gas fire denial - Arrow

http://www.brisbanetimes.com.au/queensland/dalby-gas-fire-not-csg-related-arrow-energy-20120820-24h5s.html

Arrow Energy says a *gas fire burning* on one of its properties in Queensland is under control and is not linked to the company's coal seam gas activities. Fire fighters were called to a grass fire at the site of Arrow's Daandine CSG project, west of Dalby, on the weekend. The grass fire has been put out. Arrow Energy says the gas fire is centred on an old coal mine well, and is continuing to burn, but in a controlled, secure way.

• 14 August, 2012 - Release of circulation fluid during horizontal directional drilling (HDD) works along the export pipeline at KP 45.3.

http://www.qgc.com.au/media/216670/07-12-12_annual_return - pipelines_final_-_published_document.pdf

• 11 August, 2012 - Between 4,000 and 8,000 litres of drilling fluid was released to land from a sump on the Kathleen 125 well lease pad. On 13 September 2012, SEWPaC advised that it will not be taking any compliance and enforcement action in response to this incident.

http://www.qgc.com.au/media/216667/07-12-12_annual_return_-_gasfields_final_-_published_document.pdf

• 22 July, 2012 - Release of approximately 500 litres of circulation fluid during horizontal directional drilling (HDD) works along the export pipeline at KP33, near Wandoan

Remedial measures taken include the following: Erosion and sediment damaged by the event were reinstated by MCJV ESC crew (berms, sediment fences, sumps etc); Sediment deposited on riparian vegetation near the surface water was raked clean and reseeded; The pipeline trench was re-plugged at the downhill end so that further rainwater that may enter the trench will not be released to the surface water; Water samples of trench water and surface water bodies were collected and the

certificates of analysis of provided to DEHP. SEWPAC advised on 15 June 2012 that they will not take any compliance and enforcement action in response to this incident and this matter is considered closed by the Department

http://www.qgc.com.au/media/216670/07-12-12_annual_return_-_pipelines_final_-_published_document.pdf

• 20 July, 2012 - CHINCHILLA beef producer David Hubbard has seen his property impacted four times by QGC spillages this year - GGC

http://qcl.farmonline.com.au/news/state/agribusiness-and-general/general/ggc-should-spilldetails-not-just-gas/2614696.aspx

"Drilling fluid from a QGC mining rig had twice spilled into the Condamine River, a few hundred metres from where he accessed water for stock, and fluid also had spilled twice across a boundary fence into his paddock, he said. The accidents, which had occurred at a neighbouring property, had taken place over a single month. While he expressed his annoyance these incidents were occurring in the first place - a familiar story for many across rural Queensland - Mr Hubbard said his ongoing frustration was that he was not being adequately informed by the company about the discovery of the incidents and the follow-up investigations into the impacts. He said he had only learnt about two of the incidents following his own initiative and questions."

• 20 July, 2012 - Corybas leak sparks alarm – Geraldton

http://au.news.yahoo.com/thewest/regional/gascoyne/a/-/news/14280202/corybas-leak-sparksalarm/

Gas bubbling at the surface of a fracking well on The Grange farm, south of Dongara, has raised new concerns about the environmental safety of the process. Nearby growers expressed fears about contamination of groundwater supplies when a leak was discovered at AWE's Corybas wellhead. AWE managing director Bruce Clement this week confirmed the company found a gas leak on the valve of Corybas 1, which was bubbling up through rainwater in the cellar trap. Mr Clement said the leak at the well, which was fracked at 2.51km in 2009, was picked up during routine maintenance checks and was being fixed now.

• 6 July, 2012 – Coal seam gas blamed for health problems

http://www.abc.net.au/local/stories/2012/07/06/3540381.htm

The Australian Medical Association's incoming president in Queensland has confirmed several of its member doctors have raised concerns that residents living near coal seam gas mining operations may be showing symptoms of gas exposure.

• 2 July, 2012 – Queensland LNG enforcement unit to investigate 'flammable, toxic' water in Chinchilla bore near CSG project

http://www.couriermail.com.au/news/queensland/farmers-fear-as-water-boreburns/storye6freoof-1226413841111

THE State Government has called in its LNG enforcement unit to investigate why a household water bore on a Chinchilla property has suddenly become flammable and apparently toxic. Landowner Brian Monk blames the extensive coal seam gas operations in the region, including the controversial practice of fracking which has been used there. But coal seam gas company QGC said science and logic would indicate that had nothing to do with it.

• 19 June, 2012 – Metgasco fined for failure to comply - Metgasco

http://www.northernstar.com.au/story/2012/06/19/metgascos-wastewater-fine/

METGASCO has been fined \$5000 by the State Government for failing to provide information about its plans to dispose of wastewater produced by the coal seam gas extraction process. The fines were revealed on a government web site which listed cases of "non-compliance" with the Mining Act and Petroleum (Onshore) Act. A COAL seam gas company has disposed of more than a million litres of dirty water at a sewage treatment plant in northern NSW, breaching the plant's licence conditions, the NSW Environment Protection Authority says

• 18 June, 2012 – THE NARROWS – LAND CLEARING - FAUNA - NOT REPORTED

http://www.qgc.com.au/media/216670/07-12-12_annual_return_-_pipelines_final_-_published_document.pdf

QGC did not meet the requirement to notify DEHP of injuries and deaths to fauna within the 24 hour period required under the species management plan.

• 15 June, 2012 - THE NARROWS - LAND CLEARING - FAUNA - NOT REPORTED

http://www.qgc.com.au/media/216670/07-12-12_annual_return - pipelines_final_-_published_document.pdf

QGC did not meet the requirement to notify DEHP of injuries and deaths to fauna within the 24-hour period required under the species management plan.

• 14 June, 2012 - THE NARROWS - LAND CLEARING - FAUNA - NOT REPORTED

http://www.qgc.com.au/media/216670/07-12-12_annual_return_-_pipelines_final_-_published_document.pdf

QGC did not meet the requirement to notify DEHP of injuries and deaths to fauna within the 24 hour period required under the species management plan.

• 13 June 2012 – CSG Industry still has no solution for salt "time-bomb"

http://www.beefcentral.com/news/how-will-csg-manage-the-salt-time-bomb/

After studying the Environmental Impact Statement of Arrow Energy's Surat Gas Project in Southern Queensland, Darling Downs landholder and rural community group Save Our Darling Downs says it is clear the company has "no idea" about how to handle the vast tonnages of salt it will generate.

• 12 June, 2012 - Coal seam effluent salts sewerage - Metgasco

http://www.smh.com.au/environment/coal-seam-effluent-salts-sewerage-20120611-2060v.html#ixzz1xWyBfdZU

• 9 June, 2012 – THE NARROWS – LAND CLEARING

http://www.qgc.com.au/media/216670/07-12-12_annual_return_-_pipelines_final_-_published_document.pdf

QGC did not meet the requirement to notify DEHP of injuries and deaths to fauna within the 24 hour period required under the species management plan.

• 28 May, 2012 - Methane Migration Affects 5 km stretch of Condamine River - Origin

http://www.abc.net.au/news/2012-05-30/claim-csg-river-leak-caught-on-video/4041298

Gas is bubbling to the surface on a five-kilometre stretch of the Condamine River near Chinchilla on the Western Downs. The Queensland Government's LNG Enforcement Unit says it is investigating the claims. Mr Hutton says while he cannot rule out naturally occurring methane, the incident is unprecedented. "The landowners say they've never seen this happen before," he said. 'It's along quite a lengthy stretch of the river - there's very strong bubbles coming to the surface. "This is a new phenomenon for this section of the river." Mr Hutton says the river is close to CSG wells operated by Origin Energy.

• 28 May, 2012 – THE NARROWS – LAND CLEARING CAUSING FAUNA DEATH

http://www.ggc.com.au/media/216670/07-12-12_annual_return _ pipelines_final _ _ _ published_document.pdf

QGC did not meet the requirement to notify DEHP of injuries and deaths to fauna within the 24 hour period required under the species management plan.

• 24 May, 2012 - Varanus gas explosion report slams Apache Energy – LNG/Apache

http://www.abc.net.au/news/2012-05-24/varanus-gas-explosion-reportreleased/4031146/?site=northwestwa

The report is critical of Apache, saying the company had ultimate responsibility for maintaining the site and should have identified the risk that corrosion posed to the affected pipeline. It has described Apache's safety culture as 'middle-rank'.

• 12 May, 2012 – Gas leak forces suspension at QGC rig at Surat Basin - QGC

http://www.couriermail.com.au/business/gas-leak-forces-suspension-at-queensland-gascompany-rig-at-surat-basin/story-fn7kjcme-1226347929202

Gas leak forces suspension at Queensland Gas Company rig at Surat Basin-QGC. THE Queensland Gas Company has suspended operations at one of its drilling rigs on the western Darling Downs after detecting a gas leak. A 150-metre exclusion zone was established around the Surat Basin rig as a precaution late on Saturday night. The incident occurred during drilling of the Argyle 162 well, about 25km southwest of Chinchilla, on a QGC-owned property.

• 6 May, 2012 – During dewatering of a short section of the pipeline trench, rainwater was released to land at KP 106 and flowed on to a landowner's property.

http://www.qgc.com.au/media/216670/07-12-12_annual_return - pipelines_final - published_document.pdf

Dewatering activities stopped as soon as the release became evident and the landholder was notified. Water samples of trench water and surface water bodies were collected and the certificates of analysis of provided to DEHP. SEWPAC advised on 15 June 2012 that will not take any compliance and enforcement action in response to this incident and this matter is considered closed by the Department

• May, 2012 – A Case Study of CSG exploration in the Pilliga Scrub is released. The report documents serious environmental harm, breaches and inadequate government responses.

https://attachment.fbsbx.com/file_download.php?id=343635285760097&eid=AStMit_ou8C6niCy FsSDi6t6O5jXfwL0nLw6mk0gxrDpd9K32UmgVKfmziA0Chz52HU&inline=1&ext=1451103155&hash =ASv4a_z808MUu5x-

• 28 April, 2012 - CSG company spills fluid into river - QGC

http://www.smh.com.au/environment/water-issues/csg-company-spills-fluid-into-river-20120428-1xr4k.html

Drilling fluid linked to a CSG project has leaked into a Queensland river that is part of the Murray-Darling Basin. The leak occurred when contractors for coal seam gas company QGC were drilling to run a pipeline underneath the Condamine River in Queensland's southwest.

• 23 April, 2012 - A release of circulation fluid (2-4 cubic metres) which comprised of drilling fluid, water and bore hole cuttings to the bank of the Condamine River.

http://www.qgc.com.au/media/216670/07-12-12_annual_return_-_pipelines_final_-_published_document.pdf

Remedial actions included immediately ceasing drilling, placing a sand bag bund to contain and isolate accumulated circulation fluid, deploying an absorbent boom as a secondary containment device, installing pumps to remove the circulation fluid and personnel were place on site to monitor the situation. A transitional environmental; program (TEP) was submitted to DEHP on 2 May 2012 and

approved by DEHP on the same day. This program outlines the measures QCLNG and its contractors will take to minimise the risk of a release of water. The TEP was successfully completed on 21 June 2012. SEWPAC advised on 15 June 2012 that will not take any compliance and enforcement action in response to this incident and this matter is considered closed by the Department.

• 23 April - The release of more than 200 litres of treated effluent to land from a sewage treatment plant at the QCLNG Pipeline 'Camp 2' at Upper Downfall Creek Road, Guluguba.

http://www.qgc.com.au/media/216670/07-12-12 annual return - pipelines final - published document.pdf

• 10 April, 2012 - Missed pollution leak raises concern about credibility of mine audit

http://www.eco-business.com/news/missed-pollution-leak-raises-concern-about-credibility-ofmine-audit/

The breaches included suspected dumping of drilling mud and a failure to properly rehabilitate a site. But the audit, conducted in September and October, failed to detect serious incidents at coal seam gas drilling sites in the Pilliga woodland in north-west NSW. The sites had long been the subject of community concern and numerous breaches were self-reported by the owner Santos in February. Santos found the sites' previous operator, Eastern Star Gas, had serially breached environmental rules, including 16 spills or leaks of contaminated water. It also found evidence of error-ridden work practices, such as records lost, and land cleared apparently without approval.

• 4 Apr, 2012 - Queensland reveals Condamine water quality report

http://www.abc.net.au/news/2011-11-24/chinchilla-condamine-water-quality-report/3677838

The Queensland Government has confirmed the toxicity of coal seam gas water to aquatic organisms is assessed against environmental standards after it is released into rivers and not prior to discharge. This approach appears to stand at odds with the approach taken by the Queensland coordinator-general in his approach to contaminant guidelines when he approved the Australia Pacific Liquid Natural Gas (APLNG) project. Environmental protection standards are set through ANZECC aquatic ecosystem guidelines. In June 2010, the Queensland Government granted an environmental approval allowing APLNG to discharge the equivalent of eight Olympic swimming pools of treated coal seam gas water per day into the Condamine River south of Chinchilla. The water comes from the company's desalination plant on the Walloons gas field, which is part of Origin Energy and ConocoPhillips' \$35 billion coal seam gas and liquefied natural gas plant near Gladstone.

• 21 March - The release of approximately 66,000 litres of treated effluent from a sewage treatment plant located at the QCLNG Pipeline Camp at Upper Downfall Creek Road.

http://www.qgc.com.au/media/216670/07-12-12_annual_return_-_pipelines_final_-_published_document.pdf

• 16 March 2012 – Lightening strike on gas pipelines

https://pipelinesoz.wordpress.com/2012/03/16/lightning/ https://pipelinesoz.wordpress.com/2012/03/22/lightning-damage-pictures/

"The APIA/POG incident database received a new incident report the other day – a pipeline leak



caused by a lightning strike.

The confidentiality requirements mean that I'm not going to tell you where it was or which pipeline, other than that it was in an outback environment and there was a fused crater in the pipe wall about 17 mm in diameter with a 1.6 mm diameter hole at the bottom.

What I regard as striking is that lightning now ranks as the third most frequent cause of pipeline damage in the database, regardless of whether you count all incidents or just those causing loss of

containment. External interference of course remains dominant with over 80% of damage incidents. The remaining causes and number of incidents are:

- 8 construction defects (3 leaks)
- 7 lightning strikes (4 leaks)
- 6 corrosion leaks
- 5 earth movement incidents (2 leaks)

The non-leak lightning strikes were discovered through in-line inspection where strange defect indications were investigated and revealed fused craters in the pipe wall. There may be more of these that have not yet been discovered. Two of the lightning incidents were associated with power lines, where the lightning initially struck the wires then ran down a stay wire that passed close to the pipeline. So there is an obvious way to avoid that. But apart from that situation there appears to be no mitigation available for random lightning strikes on a buried pipeline."



Defect as found

10 February, 2012 - Arsenic and lead found in contaminated water leak at coal seam gas drill site - Santos

http://www.smh.com.au/environment/water-issues/arsenic-and-lead-found-in-contaminatedwater-leak-at-coal-seam-gas-drill-site-20120209-1rx7s.html

FOUR separate leaks of polluted water have now taken place at a coal seam gas drilling site near Narrabri in northern NSW since June, the resources company Santos confirmed. The spills of contaminated water led to the detection last month of toxic heavy metals, including arsenic, lead and chromium, plus traces of petrochemicals in water and earth samples taken in the Pilliga forest area. Tests last year also showed elevated levels of metals and chemicals, though these were initially blamed on the use of chemical fertilisers on farms. The company then conceded that an unreported spill of 10,000 litres of polluted water had taken place in June. But Santos has now reported a series of leaks that occurred since it took over the site from Eastern Star Gas late last year. "There have been three

subsequent, smaller leaks of water from coal seams within Eastern Star's Pilliga operations in the weeks immediately following Santos' acquisition of the company," a spokesman said.

• February 2012 – APPEA Report: LNG tank gas release – Woodside

http://www.appea.com.au/images/stories/Safety/71%20 %20Ing%20tank%20gas%20release.pdf

During the installation of an LNG loading pump a significant amount of hydrocarbon gas was generated and released to the atmosphere when the loading pump at 300C came into contact with the -1620C LNG product within the pump well. The resultant vapour cloud engulfed the work party located on the scaffold above the LNG tank. The scaffold had only one "intended" means of escape which was blocked by the vapour cloud due to the prevailing wind direction. The work group left the scaffold and waited for the gas release to dissipate. After initial contact and subsequent gas release the pump was lowered to normal position. There were no injuries or immediate damage associated with this incident

• 14 January, 2012 - Coal-seam gas pollution spill went unreported - Santos

http://www.theaustralian.com.au/national-affairs/coal-seam-gas-pollution-spill-wentunreported/story-fn59niix-1226244002610

COAL-SEAM gas giant Santos has admitted a company it now owns last year **spilled 10,000 l of polluted waste water in the Pilliga State Forest,** in northern NSW, potentially contaminating 1.2ha of bushland.

• 4 Jan, 2012 – Acting Premier denies fish kills related to LNG harbour dredging

http://www.smh.com.au/environment/conservation/fish-kill-not-linked-to-gladstone-dredgingacting-premier-20120104-1pko0.html

Another fish kill in central Queensland may not necessarily be linked to dredging in Gladstone Harbour, acting Premier Andrew Fraser says.

• 3 Jan, 2012 – Fish Kills at Gladstone extend upriver

http://www.abc.net.au/news/2012-01-04/investigation-underway-into-queensland-fishkill/3758334

The Queensland Government is investigating the discovery of **more dead fish in a Gladstone waterway**. The Department of Environment and Resource Management imposed a local fishing ban when sick fish were found in Gladstone Harbour in recent months. Barramundi and other fish turned up with cloudy eyes and discolouration, and the ban forced a number of commercial fishing operators out of business. Now local fisherman Chris Sipp says he has found 15 dead barramundi in the upper Boyne River in recent days.

• Dec, 2011 – Report – AGL - A total of 53 environmental incidents at AGL operated sites were recorded in AGL's corporate incident reporting systems during FY2011

http://2011.aglsustainability.com.au/index.html#/76/zoomed

A total of **53** environmental incidents at AGL operated sites were recorded in AGL's corporate incident reporting systems during FY2011, compared with 15 incidents recorded in FY2010. One of the incidents was rated as having a high potential risk (the overtopping of a dam at the Downlands Facility during the Queensland floods in December 2010). Other incidents included minor spills and leaks, administrative non-compliances and noncompliant air emissions. In addition to environmental incidents at AGL operated sites, during FY2011, a number of incidents occurred at the AGL-Arrow Energy Moranbah Gas Project joint venture, where Arrow Energy is the operator. Further information can be found in the 2011 Annual Report available at 2011annual report.agk.com.au.

• Dec, 2011 – Qld Gov. CSG (6 monthly) Compliance Report

http://www.ehp.qld.gov.au/management/coal-seam-gas/pdf/csg-compliance-report-jan.pdf

The Queensland government reported that in only the first six months of 2011 there were **forty-five** CSG compliance related incidents, including twenty-three spills of CSG water during operations, four uncontrolled discharges of CSG water, three exceedances of discharge limits, three overflows of storage ponds, and other incidents relating to vegetation clearing and BTEX contamination (see "Drilling Down" – link on final page). *Nb. The document quoted from and linked (above) has since been removed from the DPH website and replaced with this document:*

https://www.ehp.qld.gov.au/management/non-mining/documents/csg-compliance-report-jan.pdf

• 21 Dec, 2011 – TSS WATER RELEASE NOT REPORTED - QGC FINED

http://www.qgc.com.au/media/216670/07-12-12_annual_return - pipelines_final_-_published_document.pdf

Exceedance of the 30 mg/L limit on total suspended solids (TSS) in water released from a pond at the Phillipies Landing Road Section of the Narrows site. In addition, QGC did not provide a written report about the above incident to DEHP, within 10 business days of the initial notification. QGC received a penalty infringement notice (PIN) of \$6,600. The PIN was issued for failing to notify SEWPaC within the required 5 days of first becoming aware of the incident.

• 19 Dec, 2011 – QGC – INCORRECT STORAGE CAUSE ACID SULPHATE SEEPAGE ISSUE

http://www.qgc.com.au/media/216670/07-12-12_annual_return_-_pipelines_final_-_published_document.pdf

During a third party audit in the Narrows Section, the following matters were noted: Mangrove root and associated potential acid sulphate soils were stored in a skip designed for timber rather than a contaminated soil bin. Seepage of the material to land was noted; and there was no evidence of action being taken to clean up the release as quickly as practicable; and the skip was placed seaward of the highest astronomical tide. SEWPaC advised on 14 March 2012 that it will not take any enforcement action in response to this incident.

• 10 Nov, 2011 – In pictures: Mystery marine disease off Gladstone

http://www.abc.net.au/news/2011-11-09/gladstone-harbour-in-pictures-and-quotes/3650296

Fishing in the World Heritage-listed waters off the coast of Gladstone is a business for many and a popular pastime for locals, but ever since the outbreak of disease in marine life, the industry there has been in panic mode. An unprecedented number of fish with red spots, lesions and parasites, as well as dead dugongs and turtles, have been found this year. Fishermen and conservationists blame the state of the marine life on dredging to widen Gladstone Harbour to accommodate carrier ships servicing the booming liquefied natural gas and coal seam gas industries. But **the Gladstone Port Corporation does not believe the dredging is causing the disease in fish, and authorities say last year's wet summer may be a factor in the poor health of the harbour.** Water testing shows a number of sites within the harbour exceeded national guidelines for aluminium, copper and chromium. Experts say the levels pose a minimal risk to marine life; however, the Queensland Government has appointed an independent scientific panel to conduct more research.

• October, 2011 – APPEA Report: LNG Pressure Vacuum breaker loss of containment – gas release

http://www.appea.com.au/images/stories/Policy - Safety and Health/incident alerts/60 -Pressure Vacuum breaker loss of containment.pdf

A gas cloud was observed emanating from the hydrocarbon Pressure Vacuum (PV) breaker on-board a GPSO. The PV breaker released at a lower pressure than the expected design pressure, resulting in the release of about 28,000kg of hydrocarbon gas. The cargo tanks took approximately 1.5 hours to depressurise via the PV breaker.

• 23 September, 2011 – Is dredging killing the Gladstone fish and making us sick?

http://theconversation.com/is-dredging-killing-the-gladstone-fish-and-making-us-sick-3517

Several individuals have required medical attention after a mystery disease appeared to spread to humans from fish in waters near Gladstone, Queensland. Fishing bans are currently in place and local residents have been told not to eat local seafood. While little is known about the disease, test results from several affected fish are due to be released in the coming days. Environmentalists, such as Dr Andrew Jeremijenko, have suggested that the dredging of Gladstone Harbour – to accommodate the burgeoning liquified natural gas (LNG) development on nearby Curtis Island – could be to blame for the disease.

• 17 September, 2011 - Academics warn of looming seam-gas 'mess'

http://www.theaustralian.com.au/national-affairs/academics-warn-of-looming-seam-gasmess/story-fn59niix-1226139356296

"Dr Mudd said one of his students had recently conducted such a study of a CSG well, and found while one nearby water bore was unaffected by the operations another 5km away suffered a "very major impact". "If a an undergraduate student can do that in three weeks of full-time work why the hell hasn't the government done that?" he said. A LEADING resource economist has called for restrictions on the booming coal-seam gas industry until proper water quality and technology monitoring systems can be implemented.

• 14 September, 2011 - QLD gas well leaking – QGC

http://www.abc.net.au/site-archive/rural/qld/content/2011/09/s3317609.htm

Another gas leak at a coal seam gas site on the Western Downs has raised further concerns about safety in the industry. The latest leak is near a drilling rig on a private property about 20 kilometres south east of Miles. **It's the second time this year a gas leak in the Surat Basin has required work to stop on site and an exclusion zone be set up**. Details about the incident have come mostly from the Queensland Gas Company or QGC. It says the leak isn't dangerous and is emanating from a five centimetre crack in the gas line leading to the well head. **The owner of the property, Glen Tilly, has refused to comment to the ABC.**



Gas is leaking from a five-centimetre crack in a pipe on a Queensland coal seam gas development. Queensland Gas Company senior vice-president Jim Knudsen said the leak was not dangerous and an exclusion zone had been set up while workers fixed the problem. The pipe was damaged on Monday near the well head at QGC's Berwyndale South gas field

• 13 September, 2011 - Crews work to fix leaking gas well - QGC

http://www.thechronicle.com.au/story/2011/09/13/crews-work-fix-leaking-gas-welltoowoomba/

http://www.smh.com.au/environment/gas-mine-leaking-in-southern-queensland-20110913-1k7do.html#ixzz1Y9QBEyFG

A SAFETY zone has been established around a <u>Darling Downs</u> gas well which has been <u>leaking</u> since last night.

• 13 September, 2011 – Dalby Land Access complaints

http://beta1.farmonline.com.au/story/3620580/dalby-csg-access-complaints/

THE Queensland Government is investigating at least a dozen landholder complaints involving coal seam gas (CSG) company QGC issuing notice of entry letters in areas where it does not have mining exploration authority.

• 28 August, 2011 – Carcinogens found in CSG project - Arrow

http://www.smh.com.au//breaking-news-national/carcinogens-found-in-csg-project-201108281jg77.html

The Queensland government is investigating a gas field west of Brisbane after the discovery of traces of cancer-causing chemicals at five bores. **Benzene, toluene and xylene were discovered during routine tests of 14 bores** used to monitor the company's coal seam gas (CSG) dams at the Tipton West and Daandine gas fields near Dalby, Arrow Energy said in a statement on Sunday. The level of the chemicals found at Arrow's operations ranged between two parts per billion (ppb) and 16ppb.

• 22 August, 2011 - Santos fined over outback gas blast – Santos (Ethane- not CSG but worth noting as it was a lack of maintenance which caused this issue)

http://www.abc.net.au/news/2011-08-22/santos-fined-moomba-explosion/2850122

Oil and gas producer Santos has been fined for breaching workplace safety laws over an explosion at its Moomba natural gas plant in South Australia.

• 10 August, 2011 - NSW Gov't issues AGL with a formal warning after coal seam gas well blowout - AGL

http://www.kateausburn.com/2011/08/10/nsw-govt-issues-agl-with-a-formal-warning-after-coalseam-gas-well-blow-out/

The NSW Government has issued AGL with an official warning following an incident during maintenance of a coal seam gas well at a site in <u>Camden</u> on 17 May 2011.

• 10 August, 2011 - AGL warned over coal seam well leak - AGL

http://www.northernstar.com.au/story/2011/08/10/agl-warned-over-coal-seam-well-leak/

ENERGY firm AGL has been formally warned by the NSW government after a <u>leak</u> at one of its coal seam gas wells in <u>southwest Sydney</u>.

• 3 August, 2011 - Coal seam damage to water inevitable - APPEA

http://www.eco-business.com/news/coal-seam-damage-to-water-inevitable/

http://www.smh.com.au/environment/water-issues/coal-seam-damage-to-water-inevitable-20110802-1ia00.html#ixzz3nJTWdQWR

"Coal seam damage to water table inevitable" APPEA. THE coal seam gas industry has conceded that extraction will inevitably contaminate aquifers. The Australian Petroleum Production and Exploration Association told a fiery public meeting in Sydney that good management could minimise the risks of water contamination, but never eliminate them. "Drilling will, to varying degrees, impact on adjoining aquifers," said the spokesman, Ross Dunn. "The extent of impact and whether the impact can be managed is the question."

• 21 July, 2011 - Leaking, bubbling coal seam gas well - Pilliga State Forest NSW -Santos

Video from the Pilliga: <u>http://www.youtube.com/watch?v=qf5Rj3vfQPc</u>

• 21 June, 2011 – Arrow fined \$40,000 for Breach – Arrow & QGC

http://www.couriermail.com.au/ipad/arrow-hit-with-40000-fine-for-breach/story-fn6ck2gb-1226078776279

ARROW Energy has been hit with a \$40,000 fine - Queensland's biggest penalty to date against a coal seam gas company - for five breaches of the petroleum and gas laws at the Daandine Homestead property near Dalby. The fine does not include any penalty for the blowout of Arrow's well on the same property, which is still under investigation by the State Government. Arrow was fined in this instance over breaching access laws that state a landowner must be given 10 days' notice before a company can enter private property. Another breach related to a technical issue over a pipeline. The fines followed more than a year of controversy for the emerging industry. Rival company Queensland Gas was also fined almost \$20,000 in April for illegally clearing trees at its project near Tara.

• 17 June, 2011 – Dredging starts, Data next month

http://www.gladstoneobserver.com.au/news/dredging-starts-data-next-month-marinehealth/881096/

WATER quality and marine health data will be made public and updated weekly on the Gladstone Ports Corporation website starting next month, despite the dredging having already started.

• 13 June, 2011 - Gas chief admits company at fault – (Metgasco)

http://www.northernstar.com.au/story/2011/06/13/gas-chief-admits-company-at-fault-overstorage-pon/

METGASCO CEO Peter Henderson has conceded the gas company was remiss in not cleaning up two ponds after drilling at a site at Dyraaba was abandoned.

• 7 June, 2011 - Coal seam gas leaks posed fire threat: report

http://www.abc.net.au/news/video/2011/06/07/3238112.htm?site=southqld

A new report has revealed five coal seam gas wells in Queensland could have ignited after they developed leaks.

• 5 June, 2011 - Coal Seam Gas Pond Toxic water storage leaking and overflowing (Metgasco)

http://www.youtube.com/watch?v=smP9tL_e3U8 - Dobie's Bight Rd

• 23 May, 2011 – Qld farmer worried about gas leak on land (Arrow)

http://news.smh.com.au/breaking-news-national/qld-farmer-worried-about-gas-leak-on-land-20110523-1f063.html

Mr O'Connor told AAP it was the **fourth gas incident on his property in two years**. "We've had three gas leaks prior to this but none as big as this," he said. "The other incidents didn't come from the wells. One was from a leaking pipe." Mr O'Connor has 12 wells on his 1847-hectare property after Arrow Energy gained access in 2006.

• 23 May, 2011 – Queensland coal seam gas leak plugged – (Arrow)

http://mines.industry.qld.gov.au/assets/mines-safety-health/Safety_Alert_Well_48.pdf

http://www.theaustralian.com.au/news/nation/queensland-coal-seam-gas-well-blows-itstop/story-e6frg6nf-1226061049085

A LEAKING coal seam gas well west of Brisbane has been plugged. The gas well, west of Dalby, began leaking yesterday while Arrow Energy, the company which operates the well, was preparing it for gas production. The well was uncapped to install a pump when water and gas burst to the surface. Greens spokeswoman Libby Connors said water and gas exploded up to 100 metres high. Contractors at the scene were not hurt and a 100m exclusion zone was established around the well on a farmer's property off Kogan-Condamine Road

• 4 March, 2011 – Gladstone dredging begins soon

http://www.gladstoneobserver.com.au/news/gladstone-dredging-start/786237/

QUEENSLAND Treasurer and Minister for State Development and Trade Andrew Fraser has welcomed the announcement of a dredging project that will see Gladstone Port become one of the world's major Liquid Natural Gas exporters. Gladstone Ports Corporation announced that the first stage of the \$1.3 billion Western Basin Dredging and Disposal Project has been awarded today. Joint venture partners Van Oord and Dredging International Australia will commence the first stage of the dredging project worth an estimated \$387 million immediately.

• 3 March, 2011 - CSG concerns bubble to surface – (Metgasco)

http://www.echonews.com.au/story/2011/03/03/csg-concerns-bubble-to-surface-locals-csgconcerns/

Northern Rivers residents continue to be alarmed by the practices involved in coal seam gas exploration, with revelations that a tailing pond (where water used in the test bore is kept until it can be trucked away) is poorly maintained. The pond at Dyraaba has a lining made of builder's plastic that is ripped in places and overflowed in the January rains. Reports of a possible third leaking test well, at the same site at Dyraaba.

• 1 March, 2011 - Leaking coal seam gas concerns – (Metgasco)

http://www.northernstar.com.au/story/2011/03/01/leaking-coal-seam-gas-concerns/

STATE Greens candidates Sue Stock and Janet Cavanaugh say they have been alerted about a potential leaking coal seam gas site at Lower Dyraaba, west of Casino.

• March 2011 – QGC contractor breaches environmental laws

http://www.pnronline.com.au/article.php/212/1670

March 2011 - QGC suspended work in its major pipeline in Queensland after admitting one of its contractors may have breached Federal and State environmental conditions in clearing a 6 km long, 40 m-wide route for the pipeline near Dalby. Knudson said at the time that the <u>lack of approved plans</u> <u>for soil and species management</u> may have resulted in the breach, but said QGC does not believe the clearing had an adverse impact on protected plants and animals.

• 24 February, 2011 – Leaking gas - Call to hold off on gas drilling (Metgasco)

http://www.northernstar.com.au/story/2011/02/24/call-hold-gas-drilling/

The Northern Star revealed at least two sites on the Northern Rivers were leaking. The Star yesterday revealed there were more than 50 drill sites in place or approved across the region. It revealed two supposedly sealed drill sites near Bentley were leaking methane gas through the soil. Metgasco, which is responsible for the sites, insists the leaking gas is not entering underground water reservoirs around the drill sites.

• 24 February, 2011 - Gas wells leaking methane – (Metgasco)

http://www.northernstar.com.au/story/2011/02/24/local-gas-wells-found-leaking-metgascolismore/

METGASCO has confirmed methane gas has escaped from two of its drilling wells, prompting calls that the industry regulator immediately inspects all coal seam wells in the region to discover if more are leaking. Metgasco's chief operations officer, Mick O'Brien, said yesterday methane was found to be leaking from sealed wells near Bentley and north-west of Casino. "These were small gas leaks from the piping connections at the top of the ground," he said, adding they have both since been re-sealed. "At Bentley we couldn't detect any methane, but I heard someone managed to light it and from the piping you would expect it to be methane."

• 14 Feb, 2011 - Farmer worried about coal seam gas water release

http://www.abc.net.au/news/2011-02-14/farmer-worried-about-coal-seam-gas-waterrelease/1941086

A farmer on Queensland's Darling Downs says she is concerned about the quality of water discharged by a coal seam gas plant onto her property during last month's flood emergency. Megan Baker's farm is only a few kilometres from Arrow Energy's water storage and treatment facility at Daandine, northwest of Dalby. During last month's flood emergency, Arrow received State Government permission to release water from a storage dam into a nearby creek to prevent damage to the dam wall. The discharge flowed over Ms Baker's property and she is now concerned about the impact it has had on her cattle and crops. Ms Baker says she has not seen the results of water tests conducted by Arrow.

• 16 Feb, 2011 – Bore testing gives carcinogen chemical all-clear

http://www.abc.net.au/news/2011-02-16/bore-testing-gives-carcinogen-chemical-allclear/1944490

Arrow Energy says water bore tests in Queensland's Central Highlands have found no traces of benzene. The tests were conducted after traces of the carcinogen were detected in nearby coal seam gas (CSG) wells last year. Last November, Arrow Energy found traces of benzene in three out of 60 water samples taken from coal seam gas wells near Moranbah, south-west of Mackay in north Queensland. Secondary testing confirmed the presence of the chemical but recent testing of water bores near the wells have found no traces of the carcinogen.

http://www.abc.net.au/news/2011-02-16/bore-testing-gives-carcinogen-chemical-allclear/1944490

• Feb, 2011 –QGC fracking causes interconnectivity between aquifers and leaking wells not rectified in a timely manner

http://www.abc.net.au/4corners/special_eds/20110221/gas/docs/QGC_Response.pdf http://www.abc.net.au/4corners/content/2011/s3144681.htm

<u>Myrtle 3 – Anne Bridle</u>: About six weeks after the fracturing process in mid-2009, QGC's monitoring indicated that the Walloons and the Springbok formations were connected where the Myrtle 3 well had been drilled. <u>Argyle 2 & 5 – Scott and Kate Lloyd:</u> The Argyle 2 well, about 1km from the Lloyd's homestead and the Argyle 5 well, about 1.4km from the Lloyd's homestead, were leaking gas for 5 years before QGC decided to rectify the matter after being exposed by the ABC. <u>Lauren and Cody:</u> Leaks identified

• January, 2011 – Huge Loss of Containment Toowoomba Range – Roma to Brisbane Pipeline

http://pipeliner.com.au/news/roma_to_brisbane_pipeline_flood_damage_and_response/077836

On 10 January 2011, a violent 'inland tsunami' struck Toowoomba causing landslides and washouts. **The RBP, which runs down the Toowoomba escarpment at an acute angle, suffered exposure and damage at several sites.** In particular, there was a significant washout of the DN400 pipeline approximately 200 m from the top of the Toowoomba range where the pipeline crosses under a dual railway line. Approximately 20 m further down the slope there was also a loss of containment on the DN250 pipeline caused by an excessive amount of stress placed on the pipeline during a landslide.

• 19 November, 2010 - Toxins found at third site as fracking fears build – Arrow & Metgasco

http://www.smh.com.au/environment/toxins-found-at-third-site-as-fracking-fears-build-20101118-17zfv.html#ixzz1ViDujTwr

TRACES of toxic chemicals have been found at a "fracking" operation to extract coal seam gas - the third time this year that gas producers have detected contamination at a drill site. Arrow Energy confirmed that benzene, toluene, ethylene and xylene - together known as BTEX - had been found in wells at a gas site east of Mackay, Queensland. In NSW documents obtained from the Department of Industry and Investment show that a coal seam gas drilling site near Lismore, run by the Sydney company, Metgasco, was permitted to use fracking after supplying a generic list of hazardous materials safety guidelines. Emails [between department staff and Metgasco] show that testing for coal seam gas using fracking can go ahead without approval being sought, or required, from the Environment Department.

• 9 Nov, 2010 - New coal seam gas chemical scare

http://www.brisbanetimes.com.au/queensland/new-coal-seam-gas-chemical-scare-2010110817kzf.html

"Arrow Energy says a carcinogen has been found in three of its coal seam gas wells in central **Queensland**. Routine tests at the Moranbah gas project, west of Mackay, have detected traces of benzene in three of 60 fluid samples taken, the company said. Arrow has ordered independent tests to verify the results but says it's unlikely the chemicals have spread to water bores." 'There is no registered water bores within five kilometres of the three wells," the company said in a statement.

• 29 October, 2010 – Origin puts out media release claiming it is "confident" fracking did not contaminate aquifers

http://www.aplng.com.au/sites/default/files/APLNGnoimpact291010_0.pdf

The analysis of these samples identified BTEX but it "did not identify unsafe levels of any of these chemicals". "Australia Pacific LNG is confident the fracture stimulation operations undertaken on its exploration wells have not had any impact on landholder water bores" "State Government regulator, the Department of Environment and Resource Management, has reviewed the analysis and has not raised any issues with this conclusion."

• 25 Nov, 2010 – Santos found to have polluted water – infringement notice

Summary of Notice No: 3085764550	
, , , , , , , , , , , , , , , , ,	
Organisation:	SANTOS NSW PTY LTD
Location:	NIA
LGA:	NIA
Catchment:	NIA
Issue date:	05 Jul 2012
	Penalty Notice
Offence date:	25 Nov 2010
Legislation:	Protection of the Environment Operations Act 1997 - 120(1)
Offence short title:	Pollute waters - Corporation

 October, 2010 - Origin stops coal seam gas drilling after chemicals found in water around 8 wells – Admits contaminating water - Origin

http://www.smh.com.au/environment/energy-smart/origin-stops-coal-seam-gas-drilling-afterchemicals-found-in-water-20101020-16ud7.html#ixzz1ViEpErIH

Farmers near a coal seam gas "fracking" site in Queensland will have their water supplies tested for toxic benzene and other chemicals today after Origin Energy found contaminated water near drilling sites. The discovery of BTEX - a mixture of benzene, toluene, ethylbenzene and xylene - around eight coal seam gas wells near Miles, west of Brisbane, marks the first time a resources company has admitted to contaminating water at a fracking site. Origin detected the chemicals a week ago and told the Queensland government - which is legislating to ban the use of BTEX chemicals during coal seam gas drilling - on Friday. Most landholders in the area have been notified of the contamination. There

is no known impact on drinking water in the gas field. Origin has shut down all 17 of its drilling rigs across a 40-kilometre-wide area while an investigation is carried out.

• September 2010 – APPEA Report: Significant spill of produced water – QGC

http://www.appea.com.au/images/stories/Policy -_Safety_and_Health/32_-_High_Potential_Incident_Alert_-_Water_Trunk_Line_Strike.pdf

During excavation of a new trench along an existing right off way the bucket of an excavator struck and ruptured a buried 315mm water line resulting in a significant spill of produced water. The water trunk line was immediately adjacent to a gas gathering system pipeline. 'As Built' information was not available for the buried pipelines but their approximate location was indicated on alignment drawings and the contractor being aware of the Brownfield nature of the site, had also sought to locate and mark these pipelines prior to excavation via the use of Pot Holing and or Metro Tech devices. The incident occurred when the excavator struck a roping bend in the buried pipeline that had not been properly located. The Company did not ensure the contractor had located all underground services prior to commencing the physical work program. The activity was covered by a Permit to Work but relevant controls were not checked prior to issue of the Permit.

• September 2010 - Bogged Grader Pipeline Strike & Gas Release – Santos

http://www.appea.com.au/images/stories/Policy_-_Safety_and_Health/36_-_High_Potential_Incident_Alert_-_Bogged_Grader_Pipeline_Strike__Gas_Release.pdf

A grader operator bogged over a live gas pipeline attempted to use the blade to recover the grader. The blade struck and ruptured the HDPE line, releasing gas to atmosphere.

• 29 July, 2010 – Weatherford Drilling (who also operate in CSG arena) apologises for gas rig death (Moomba)

http://www.abc.net.au/news/2010-07-28/drilling-company-apologises-for-gas-rig-death/922888

A drilling company charged over the first workplace fatality since tougher penalties were introduced in South Australia has pleaded guilty in the industrial court. Weatherford Drilling International pleaded guilty to failing to maintain a safe work environment and failure to appoint a responsible officer to ensure the company met safety obligations.

• 11 March, 2010 – Santos found to have polluted water – Infringement notice

Summary of Notice No: 3085764541

 Organisation:
 SANTOS NSW PTY LTD

 Location:
 NVA

 LGA:
 NVA

 Catchment:
 NVA

 Issue date:
 05 Jul 2012

 Penalty Notice
 Offence date:

 Offence date:
 11 Mar 2010

 Legislation:
 Protection of the Environment Operations Act 1997 - 120(1)

 Offence short title:
 Pollute waters - Corporation

• March 2010 – APPEA Report: LNG Loss of Containment incident – Gas release – Woodside

http://www.appea.com.au/images/stories/Policy - Safety_and_Health/41 -High_Potential_Incident_Alert_-_LNG_Loss_of_Containment_Incident.pdf

During an LNG carrier's routine cool-down operations, the shore terminal loading arm emergency release coupling (ERC) separated close to the vessel cargo manifold. The separation did not close the ERC dry break arrangement, resulting in LNG loss of containment. Cargo operations were immediately stopped with the activation of an emergency shutdown, ship and shore staff mustered, and area secured until gas free. The release size was classified as Major using the RIDDOR system. The officer of the watch on board the LNG carrier suffered LNG cold-burn injuries.

• February 2010 – APPEA Report: Uncontrolled Gas Release – Arrow

http://www.appea.com.au/images/stories/Safety/11 - High_Potential_Incident_Alert_-_Uncontrolled_Gas_Release.pdf

Incident summary - A 1/2'' ball valve was attached to the pressure test points to enable diagnostics to be conducted. The nipple on the ball valve failed resulting in the release of methane gas. Personnel advised not to enter the plant in the event of a gas release, due to the potential for explosion.

• 21 September, 2009 - Broken leg from coal seam gas sampling incident involving high pressure

http://mines.industry.qld.gov.au/assets/petroleum-pdf/safety_alert043.pdf

• 21 September 2009 - A crushing incident involving drill collars and selection of lifting elevators

http://mines.industry.qld.gov.au/assets/petroleum-pdf/safety_alert044.pdf

• 29 August, 2009 - Crushing fatality – pipe racks load shift

http://mines.industry.qld.gov.au/assets/petroleum-pdf/safety_alert042.pdf

A 24-year-old man was struck and crushed by pipe racks which came off a truck that was being unloaded at a drill site. The rig worker did not survive his injuries.

• 25 June, 2009 - Drill Rig Walkway - Toe amputated when securing walkway

http://mines.industry.qld.gov.au/assets/petroleum-pdf/safety_alert041.pdf

• 1 Aug, 2008 – Aussie Gas Boom anticipated

http://www.abc.net.au/7.30/content/2007/s2233048.htm

A giant British resources company is attempting one of the biggest takeovers in Australian corporate history, possibly the biggest. The BG Group has announced a \$13 billion bid for Origin Energy the nation's second largest energy retailer, with an extensive portfolio of gas fired generation plants and gas production interests in the Bass Strait and Otway Basin. Well, one of the main reasons the BG

Group is so keen on the takeover is because of the company's enormous CSG re reserves in Queensland.

GEORGE BENDER, CHINCHILLA FARMER: "What's going to happen in 20, 25 years time when they all dry up, what's going to happen to all the salt left in those ponds?"

[Nb. Seven years later, George (2015) commits suicide due to emotional stress created after Origin Energy CSG project damages his bore and UCG company, Linc Energy, impacts his groundwater and soils]

• 10 Jan, 2004 – Big Stink in gasland

http://www.smh.com.au/articles/2004/01/09/1073437472720.html

Minor volumes of methane from coal seams are being tapped around Camden, with plans to tap into the coal reserves of the Hunter Valley. A small gas field near Narrabri is also being developed. But NSW is yet to find an oil or gas field large enough to reduce its reliance on Moomba in South Australia, which is becoming increasingly unreliable with three incidents over the past two years - and declining reserves, to boot. Exploration of the acreage off the NSW coast begins in earnest this month, with seismic mapping of the most likely section - a huge underground structure called Biggus, which lies about 12 kilometres off Terrigal - to start on Monday week, and an exploration well to be drilled 2 kilometres into the earth's crust later this year. The structure is around 30km long and 7km wide, and large enough to hold 1 trillion cubic feet of gas, according to estimates of former holders of the acreage.

• March 2003 – Fatality on CSG Drill Rig

http://mines.industry.qld.gov.au/assets/petroleum-pdf/safety_alert012.pdf

A drill rig operator suffered fatal injuries when he was crushed between a length of drill collar and an adjacent "mousehole" during stacking pipe on an unstable foundation. It appears that the ground gave way between the position where the pipe was being stacked and the hole excavated to locate the "mousehole".

• 6 September, 2002 – Injury

http://mines.industry.qld.gov.au/assets/petroleum-pdf/safety_alert010.pdf

A floorman was removing the covers from casing when two stands fell on him resulting in a broken leg and evacuation by the Royal Flying Doctor. Stoppers were not in place and the activity was being carried out in poor light conditions.

• 5 January, 1998 – Drill rig serious leg injury

http://mines.industry.qld.gov.au/assets/petroleum-pdf/safety_alert002.pdf

Repairs to a rig at night involved electric welding and the rig was shut down while work was carried out. The electric welder cables were coiled on the deck and draped across an exposed drive shaft. When the clutch was engaged to test the repair, cables which were thought to have been removed

were caught up in the drive shaft. The cables wrapped up the leg of an operator standing on the coil and dragged him into the shaft. The young operator suffered serious injuries to his leg.

**Date to be confirmed for two incidents where QGC Hydraulic fracking impacted aquifers (source – QGC Document)

- Of the twelve (12) wells to-date fracture stimulated and monitored with some form of height diagnostics, fracture containment within the Injune Creek Beds, without contact to any overlying or underlying water-bearing sandstones, was achieved in all but two wells. In these two wells (one area), the unconformity between the WSG and Springbok sandstone has indicated good quality sand development immediately adjoining the top coal of the WSG, and connections were made during the frac between the well and a lower-salinity, water-bearing, Springbok sand adjoining the coal. These connections were identified through production testing (salinity changes) or production logging. Both wells were produced until salinity stabilised at the level expected from the Springbok sand, thereby assuring that insignificant volumes of fracturing fluids remained in the Springbok interval.
- The connections in both wells are currently being remediated by pumping or 'squeezing' cement directly into the area of connection and returning the well to production to verify the veracity of the seal. Further, an offsetting, observation well has been placed nearby in the Springbok to assure and monitor this isolation over time. Isolating a point of connection by 'squeezing' cement directly into the fracture and around the well casing or liner is a standard industry practice for these occurrences, This remediation and monitoring process can be used throughout the basin, where such a connection should inadvertently occur.

New Zealand

September 20, 2012 – Fracking in Southland exposed – New Zealand

http://www.3news.co.nz/Fracking-in-Southland exposed/tabid/423/articleID/259325/Default.aspx

But over the 21 months it was active, <u>more than 11 million litres of waste water - including fracking</u> <u>chemicals and potentially carcinogenic coal residue - was dumped in the stream</u>. "The stream was looked at with regard to its ability to assimilate such waste water," says Environment Southland consents manager John Engel. "The nature of it was such that it was relatively clean water but it did contain materials from the coal seam that were not normal for that stream." The permit - granted by Environment Southland - to dump the waste was non-notified, meaning only the bare minimum of people knew.

September 20, 2012 - Taranaki gas field contaminates soil – New Zealand

http://www.3news.co.nz/Taranaki-gas-field-contaminatessoil/tabid/1160/articleID/269871/Default.aspx

Hundreds, <u>potentially thousands of cubic metres of soil have been contaminated</u> by toxic chemicals at a gas field in Taranaki. <u>Six well sites at the Kapuni gas field south of New Plymouth used unlined</u> <u>pits in the earth to store and burn off chemicals from operations, including hydraulic fracturing.</u> And the company was sometimes doing so without the required council consent. Kapuni is the oldest gas field in the country. For decades the normal practice was to use unlined pits to store and burn off chemicals and sludge from the wells. Six well sites are contaminated. Soil from one had to be transported recently to a waste treatment plant in Wellington to be stabilised

Accidents and Safety – Critical Reports

http://www.appea.com.au/oil-a-gas-in-australia/safety-and-health.html

http://mines.industry.qld.gov.au/safety-and-health/accident-incident-reports.htm (NB: Gas industry incident reports appear to be unavailable)

Other Information

http://www.jeremybuckingham.org/?p=967

"The depth of the Wyoming gas wells blamed for the contamination is very similar to the depth that many Australian coal seam gas will operate, and much shallower than typical North American East Coast shale gas wells. This is a direct warning for the Australian situation. "The NSW Government should make public a list of all coal seam gas wells in NSW that have been fracked and their location, and initiate an investigation to see if there has been any contamination of adjoining aquifers." "We heard evidence in the coal seam gas inquiry yesterday that <u>AGL had fracked 117 wells at its Camden</u> <u>Gas Project but also heard that no groundwater monitoring has been conducted by the company of surrounding ground water</u>," he said.

https://www.youtube.com/watch?feature=player_embedded&v=NQ6_Uvs_vxE

This paper mentions some Australian CSG incidents (page 37 & 38): "Drilling Down - Coal Seam Gas - A background paper" - Queensland: Jan - June 2011 (6 months) there were:

- 23 spills Releases of CSG water during operations account for the largest incident type. These spills typically occurred during drilling activities or resulted from opened/faulty valves within pipework.
- 4 Discharge These incidents involved the controlled or uncontrolled release of coal seam gas water or permeate to the environment.
- 3 discharges Overflow (flooding) During the January 2011 floods, several CSG water storage dams breached the dam banks and discharged directly into the environment.
- 3 Exceedance release limits Discharge limits are set on environmental authorities and these limits were exceeded on several occasions.
- 4 Other (vegetation clearing, BTEX etc.) There was one incident relating to BTEX contamination and one incident of excessive vegetation clearing.

http://www.cityofsydney.nsw.gov.au/environment/EnergyAndEmissions/documents/CoSCSMReport finalv4pdf.pdf

http://www.cityofsydney.nsw.gov.au/environment/EnergyAndEmissions/documents/CoSCSMRep ortfinalv4pdf.p

Version Control

Updated - 30.09.2015 AM; 30.09.2015 2.40 PM; 11.10.2015 2.30PM; 16.02.2016; 26.02.2017