



One hundred years of the Department of Mines

by C. A. Bacon

THE HEADS OF DEPARTMENT

The creation of a mines department came from an idea of the Commissioner for Mines and Goldfields, one Bernard Shaw, who suggested to the Minister for Lands and Works in letters of 6 May 1882 and 11 August 1882¹ that a department should be set up to administer matters connected with goldmining (under the Goldfields Regulation Act), mining in general (under the Mineral Lands Act and Regulations), and the registration of companies under the Mining Companies Limited Liability Act. At this time, mining matters were under the jurisdiction of the Mines Branch of the Lands and Works Department².

The State was divided into five districts³, and within each of these, mining activities were administered by a Commissioner for Mines and Goldfields. Commissioners were stationed at Launceston (Northern and Southern District), St Helens (Eastern District), Scottsdale (North-Eastern District), Emu Bay (North-Western District), and at Remine (Western District). In addition, Registrars of Mines and Goldfields were stationed at Launceston, Scottsdale, Moorina, and Gladstone, while there were also Registrars of Goldfields at Alberton and Mt Victoria. The Commissioners of the North-West and Western districts had to act as Registrars, having no additional staff for this purpose.

Bernard Shaw was Commissioner for Mines and Goldfields of the Northern and Southern District, stationed in Launceston. The separation of the Mines Branch from the Lands and Works Department began in late 1882, and was finally completed by January 1883, being called the 'Mines Office'. Bernard Shaw was made the Secretary for Mines. Annual reports were made to the Minister for Lands and Works until 1894⁴, when the office of Minister for Mines was created. The title 'Mines Office' became 'Mines Department' in 1896⁵.

After having set up the new department in Hobart and instigated orderly methods of dealing with mining lease applications, mine registers, and mine plans, Shaw left the position of Secretary for Mines to become the new Police Commissioner in February 1886⁶.

Shaw was succeeded by Francis Belstead, who had taken over Shaw's previous position of Commissioner for Mines and Goldfields in Launceston in late 1882⁷, following Shaw's relocation to Hobart and involvement in setting up the Mines Office. This was a natural progression 'upwards', as the Launceston Office was the largest of all the regional offices, and the Commissioner here could be expected to be regarded as the 'senior' of all the district commissioners. Belstead continued the orderly work set out by Shaw, but was forced to retire due to ill health on 31 December 1897⁸, after only five years in office. He died of 'softening of the brain'⁹ on 23 April 1898, aged 63.

The next Secretary for Mines was William Henry Wallace, who started with the Department of Lands and Works as a

junior clerk on 17 March 1878¹⁰, aged 14. He transferred to the Mines Department in 1882, and held positions of junior clerk, cashier, accountant and chief clerk¹¹, before being made Secretary for Mines in 1898¹² following Belstead's retirement. Wallace, who was interested in music and was fond of bicycling¹³, held the position for twenty-two years before he died 'suddenly and unexpectedly' on 18 November 1920¹⁴, aged 56. The cause of death was given as a cerebral haemorrhage¹⁵.

The position then passed to William Arthur Pretzman, who, like his predecessor, had started out in the Lands and Works Department. Pretzman started there in 1879 (aged 16) as a volunteer draftsman¹⁶, and was appointed mining clerk in 1881¹⁷. On transferring to the Mines Department he was made Registrar of Mines in 1883¹⁸, and on Wallace's appointment as Secretary for Mines Pretzman was made Chief Clerk.

Although a year older, Pretzman, at 16, started work a year after Wallace, who had started at 14. Pretzman remained a step behind Wallace all through his working life. Wallace was only 29 when he was promoted from accountant to chief clerk, the heir-apparent to the Secretary of Mines position, and only 33 when he took up the head position on the death of Belstead.

The position of Chief Clerk could equally have been filled by either man. By 1893, Pretzman had been Registrar for ten years, a fairly good apprenticeship for the clerk's job—but the post went to the younger man, and Pretzman had to wait until 1898 for his next promotion. He was 35 when he finally obtained the Chief Clerk's post, and had to wait until he was 57 before the Secretary's chair again fell vacant. Pretzman was made Acting Secretary on Wallace's death, but his progression to the Secretary for Mines' position was not instantaneous. Loftus Hills, the most senior geologist in the survey, had been waiting for an opportune moment to fully air his views on the role and duties of a Permanent Head of the Department.

Hills started lobbying for a technical man to be appointed as Permanent Head—suggesting that this new position, to be styled 'Director of Mines', could most satisfactorily be combined with the position of Government Geologist. Hills wanted¹⁹ "to place the development and control of the mining industry in the hands of an officer possessing an intimate knowledge of technology and economics and all of its phases". Hills wrote prolifically on the direction the Department of Mines and the Geological Survey should take, on the investigations which should be undertaken, and on the difficulties faced by having a 'non-technical' man as head of department. This, he said, led to a "damping of enthusiasm of those professional officers" in having a purely clerical officer as head of department. In Hills' opinion "in a department concerned with the control and development of the mining industry the initiative and creative capacity essential to the inauguration of progressive and

developmental departures can only be expected in a professional head".

Early in 1921 a formal review was made into the re-organisation of the Department, which was then in three branches—Administration, Geological and Inspection, all under the auspices of the Secretary for Mines. Despite Hills' impassioned plea he was not made head of department. The Minister for Mines, Sir Elliot Lewis, thought a technical man would be wasted on administrative affairs, and of course the Acting Secretary, Pretzman, was not keen to relinquish any powers²⁰. The result was that Pretzman became Secretary for Mines, head of department, and Hills was made Director of the Geological Survey, housed in Launceston. The other geologists, A. M. Reid, P. B. Nye and H. G. W. Keid, were re-named Government Geologist's instead of 'Assistant Government Geologist' as before.

This set the scene for a clash of two iron wills—Pretzman in Hobart and Hills in Launceston. As Director of the Geological Survey Hills made sweeping changes to office rules and the running of the laboratory.

Hills had letterhead paper printed with the title 'Geological Survey of Tasmania' for the use of the Launceston Office. Before this, letterhead paper was headed 'Geological Survey Office', and after Hills' term, and when the office was moved to Hobart, ordinary Department of Mines letterheads were used by the Survey staff²¹.

During the first year in his new position, Hills' autocratic manner went either unnoticed or was accepted without complaint by the staff. Hills introduced new rules, decided what enquiries were to be answered and by whom, directed what staff were to work on what projects, and generally kept a pretty close eye on the day to day running of the office. The exception to this was with the Secretary in Hobart—with whom Hills waged a constant and unabating paper war. Pretzman tried making decisions (such as whom to send on enquiries) which Hills regarded as his to make, and took to issuing instructions direct to Nye and Reid, much to Hills' chagrin. Pretzman insisted on the return of innumerable forms and letters—returning time sheets for miserable amounts of information to be added—causing Hills to complain bitterly²² about these "petty annoyances" and "pernickety requirements (which) break the heart of a conscientious officer". Added to this was the old Secretary's habit of not forwarding a geological enquiry to the Survey, but asking Hills to provide information which the Secretary would then pass on to the enquirer. Hills implored to be allowed to answer enquiries properly—protesting that the practice of Pretzman²³ "... dealing direct with the correspondent concerned and your withholding the name and particulars from me is not conducive to efficiency". This outburst followed Pretzman's request²⁴ for "any information ... in regard to oil shales" for an enquirer—a fairly vague and loose topic, and Hills was justified in wanting to know exactly what the enquirer wished to find out. However, Pretzman insisted²⁵ that, as Head of Department, all enquiries should be made through him.

This unsatisfactory working relationship continued for some years. Things were so bad at one stage that Pretzman asked the Minister to tell Hills to return some time sheets²⁶—surely a trivial issue with which to trouble a Minister.

Pretzman was not the only one to get on badly with Hills. By 1923 the whole Survey was up in arms and so much 'friction' existed between individuals and branches that an enquiry was held. Hills' position was abolished²⁷, leaving A. M. Reid and P. B. Nye as Government Geologists, answerable to Pretzman.

However in 1926 Cabinet decided to appoint a 'technical head' to the Department of Mines, Magazines and Explosives. The Hon. James Belton, MHA was Minister for Mines at this time, and explained to the Commissioner in 1930 that Cabinet realised the State had no real mining policy. A man who understood the whole of the mining industry would be an advantage as head²⁸. Reid was appointed Director of Mines, a position which replaced Secretary for Mines as the departmental head.

The then Secretary for Mines, Pretzman, bitterly resented these changes²⁹. Pretzman had, at that stage, been in the employ of the Government for 47 years (he was 63 years old) while Reid, now aged 44, had been in the Department for only nine years. Only five years earlier Pretzman had staved off a push by Loftus Hills to become Director, and now Hills' assistant had succeeded.

From the outset, the working relationship between Pretzman and Reid was so poor as to be almost non-existent. Eventually the Public Service Commissioner was asked to conduct an enquiry "Into the Matter of the Organisation of the Mines Department". This was held in February 1930.

Witnesses alleged that Reid took commissions from companies to do private work³⁰, whilst still being employed by the Department. Reid hotly denied this charge, admitting that he did give advice, but accepted only sufficient funds to cover expenses³¹. Pretzman trotted out a store of grievances³², rather along the lines of the Hills Enquiry a few years earlier. Pretzman and Reid became locked into a war of words. Each accused the other of bungling and inefficiency; Reid saying at one point³³: "As a matter of fact I do not think a straight out idea has ever germinated in the mind of the Secretary for Mines ... I do not say that as a matter of vindictiveness, but as an absolute fact".

Pretzman maintained that although Reid was the Permanent Head, the Director still had 'no function' under the Mining Act or any other act; and that the responsibility for discharging these duties lay solely with the Secretary³⁴.

Mr A. B. Bryan, Chief Accountant, told the Commissioner that he did not want to criticise either man, but that the only friction was because "they all want to be generals"³⁵. Clearly this unsatisfactory state of affairs could not continue. The position of Director was abolished on the recommendation of the Commissioner³⁶, and on 30 May 1930 Reid was out of a job.

Whilst Reid's tenure as Director was a very difficult one, made no less so by the obstructive ways of the old Secretary, Reid can be credited with lobbying for and convincing his Ministers of the necessity for organised and systematic geological surveys over various parts of the State. Reid had several surveyors put on staff, to compile proper topographic maps so the geologists could accurately plot the geology, instead of having to first make a topographic map of sorts.

Somewhat pompously Reid wrote³⁷ "...I have been able to set in motion more important works than any of my predecessors. The time will soon arrive when the true value of the new systematic topographical and geological surveys will come up for recognition and general approval".

Reid was an excellent geologist who produced a large number of interesting and valuable reports during his time with the Department. Although he became involved in policy and planning whilst Director, he still carried out his own field investigations, and like Hills, may have been able to do more if clashes of personality had not drained his time as Director.

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Pretyman regained his position as undisputed head of Department, which he kept for the next three years until his retirement on 19 April, 1933³⁸, aged 70, after 54 years service with the Government³⁹.

After the turbulent years of Pretyman, Reid and Hills, life at the Department must have been quite tame under the direction of the new Secretary, a former State Mining Engineer James Balfour Scott⁴⁰. However one episode of Scott's tenure certainly made papers fly. The Adelaide Oil Company Ltd, with whom Hills had had numerous arguments, had continued spending shareholders money looking for liquid oil, then turning to 'oil bearing' substances. In the late 1920's the Adelaide Oil Co. Ltd joined forces with the Standard Oil Co. of Australia Ltd and the Chilean Oil Fields (South America) Ltd in a 'pool agreement'⁴¹. That is, any find of riches by one company was to be shared by the other two. However, after 16 years of looking and spending by the Adelaide Oil Co. Ltd, not a single teaspoonful of oil had been produced commercially. Shareholders induced the Shareholders Mutual Protection Society to investigate the affairs of the Company⁴², and the Minister for Mines, Major T. H. Davies, called the company "a menace to the mining public"⁴³.

The company removed, in late 1935, a 20 ton sample of shale from Crown Land in the northern part of China Flats. Inspection by Department of Mines officers, and the miner who procured the shale, showed that only the rich 'top band' of shale had been taken⁴⁴. The shale seam was known to be easily split into three bands: a top, very rich band; a thinner, almost barren, middle band; and a moderately rich bottom band^{45,46}. The company insisted that the value of oil procured from this sample, 48 gallons/ton, was representative of the shale as a whole⁴⁷, causing Secretary Scott to write to the Minister⁴⁸ pointing out that the shale, as a whole, yielded only 27 gallons/ton. The discrepancy in anticipated yields was pointed out to the Company⁴⁹ at the request of the Premier⁵⁰. The Adelaide Oil Company was also at this time (early 1937) making representations to the Commonwealth Government for remission of duty on some equipment to be purchased in America and in London^{51,52}. Scott wrote to the Minister⁵³ noting that the Company had no actual title to any shale-bearing lands anywhere in the Mersey Valley, as the Crown had leased "practically all the shale bearing areas in the district" to L. and N. (Tasmania) Ltd. A message to this effect was conveyed to the Commonwealth Government⁵⁴.

Moate, the Managing Director of the Adelaide Oil Co., reiterated earlier claims that the new Trac Vapour Phase plant in America "proved to give far higher results than was deemed possible" and continued his efforts to have the duty lifted⁵⁵, so that the three million tonnes of shale on his company's privately owned 700 acres could be treated by this new retort^{56,57,58}.

Moate spent most of 1937 promising to start up a shale oil industry, and trying to extract leases, both over Crown and private land in the Mersey district⁵⁹ without first drilling on lands over which Permits to Enter were already held. The Department promised that leases would be issued if satisfactory results were produced from the drilling⁶⁰. This was not enough for the company, who never missed an opportunity to blame the Government for their fairly evident lack of activity⁶¹. Minister Davis must have finally had enough of their tactics—after promising the leases, pending satisfactory drilling results, he tabled in the House, on 5 October 1937, all the files of Mines Department correspondence relating to the Adelaide Oil Company. This was just too much for the company, who promptly threatened to withdraw from the State⁶². This prompted a furious outburst in the Press. The *Examiner* editorial of Monday 3 November 1937 castigated the Government for letting a potential industry slip by. Major Davies replied at length, describing the Company's activities as being, amongst other things: "a blackfellows corroboree for the Moate family, and may be likened to a fourth class American jazz band which is without tune or harmony in that it has no real progressive policy for unfortunate shareholders"⁶³. A barrage of articles and letters, both for and against the company, followed^{64,65,66,67,68}. However the Adelaide Oil Company left the State and transferred its attentions to the Baerami oil shales in New South Wales⁶⁹.

In this, at least, Hills' view was finally vindicated, and his advice relating to the position of 'Head of Department' was also heeded: since Pretyman, the Head of Department has always been a 'technical man', not a clerk.

The remainder of Scott's time as Secretary was reasonably uneventful. He died after only six years in office, on 1 December 1939 at the age of 64, from heart failure⁷⁰.

His replacement was a former Inspector of Mines, W. H. Williams, who was immediately appointed Acting Secretary of Mines⁷¹, and yet another internal re-organisation followed. The title of the head of department changed back to Director of Mines, and Williams was appointed to the post in 1940⁷².

For the first few years Williams actively suppressed the publication of departmental reports, much to the frustration of officers of the Geological Survey. However after the war years Williams became instrumental in setting up the Regional Geological Mapping Branch, and encouraged systematic regional mapping of the State⁷³. Perhaps the secrecy of the affairs of the country weighed heavily during the war years, and the suppression of even geological information was thought by Williams to be the right course of action. The publication policy was reversed by Williams' successor, former mining engineer J. G. Symons, who replaced Williams after his retirement in 1954⁷⁴. Symons retired in 1980 and was replaced by the current Director, H. Murchie⁷⁵.

THE GEOLOGISTS

With the creation of a Department of Mines in 1882 came the need to have a government geologist on staff, to advise the government of the various mining areas within the State. In fact, Gustav Thureau had been offered an assignment by the Colonial Government in 1881, even before a Department of Mines was created. Thureau was born in Hanover, Germany, on 5 July 1821. He arrived in Hobart on the 'Southern Cross' in April, 1880⁷⁶, and his abilities as a geologist soon became known to the Government of the day.

The Premier and Treasurer (the Hon. W. B. Giblin) wrote to Thureau in April 1881 offering him the job of making reports on all the goldfields and tinfields in the colony, at a salary of

two guineas per day, plus expenses⁷⁷. Thureau wasted no time in accepting this offer, and started work in early May 1881, under the direction of the Minister for Lands and Works.

Following his contract work, Thureau was appointed Inspector of Mines in January 1882⁷⁸, and as well as inspecting various mine sites made geological examinations of the country surrounding each mine. This led to Thureau's title being changed to Inspector and Mining Geologist. The areas Thureau covered were wide and varied and included gold, tin, and coal; his reports were well reasoned and informative. Thureau received his naturalisation papers in

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April 1885 and retired from the Mines Branch in 1889, at the age of 68.

The title of Thureau's position was altered to 'Geological Surveyor' after his retirement, and this was filled in July 1889⁷⁹ by 27 year-old Alexander Montgomery, who came to the post with glowing references describing him as "a brilliant student, strong, active and reliable". Referee James Black of the University of Dunedin wrote "... you may advertise over all the world and not get a better man...". At the time of his appointment Montgomery held the position of Head of Department of the School of Mines in Dunedin⁸⁰.

Montgomery held a Master of Arts degree from the University of New Zealand, with a First Class Honours degree in Chemistry and Electricity and a Certificate of Metallurgical Chemist and Assayer from the Otago School of Mines, Dunedin, New Zealand. In his seven years as Geological Surveyor Montgomery, like Thureau, covered a large number of subjects, including coal, limestone, tin, gold, copper and the West Coast silver-lead-zinc deposits. Montgomery resigned to take up a 'more lucrative position' as mine manager of the Kauri Freehold Estate Company gold mine in New Zealand⁸¹.

Following Montgomery's departure, the position of Geological Surveyor was filled by James Harcourt Smith. Smith was born in Launceston in November 1864, and after being educated at the Launceston Church of England Grammar School gained a Tasmanian Scholarship which enabled him to proceed to Cambridge where he proved himself to be an able scholar. Smith gained certificates in metallurgy and mining subjects from the Mining Academy in the Hartz Mountains, Clausthal, Germany, and studied at the Muldener Smelting Works before returning to Launceston in 1891. Before being appointed to the position of Chief Inspector of Mines and Geological Surveyor, Smith worked as an assayer at the Central Broken Hill Mine from March to October 1892 (being laid off during the Great Strike of 1892), then found work (assaying) at the Western Silver Mine at Zeehan in November 1892, where he stayed until taking up the position with the Mines Department in March 1897⁸².

Harcourt Smith had many sound and practical ideas. One of his first suggestions was that mine owners be obliged to furnish detailed quarterly returns showing the quantity and quality of ore obtained and processed, number of employees, value of ore obtained and value of plant and machinery. He also urged a detailed geological survey of the island, especially the West Coast districts, and commented on how the lack of detailed topographical maps severely hampered progress⁸³.

Harcourt Smith died, aged 34, on Clarke Island in the Furneaux Group in June 1899 of pleurisy and pneumonia⁸⁴ whilst on a tour of inspection of the islands, thus cutting short 'a career of great promise'⁸⁵.

Following the sad and unexpected demise of Smith, the post of Geological Surveyor was advertised, and the successful applicant was one William Harper Twelvetrees. Twelvetrees was born in Bedfordshire, England in 1848. He was educated in Germany, becoming fluent in French, German and Russian, as well as English, after studying at the Johanneum Institute, Hamburg, and at the University of Bonn, where he studied ore dressing and surveying under Dr Adolf Gurlt.

Twelvetrees worked at the Voskresensky Copper Mine and Smelting Works in Eastern Russia from 1871-1880, and at the Lidjezsi silver-lead mines in Asia Minor from 1882-1891, after which he emigrated to Tasmania, taking up residence in Launceston. He worked firstly as Secretary of an Exhibition⁸⁶ in the Albert Hall in 1892, then was involved in insurance

work until he took the job of Government Geologist and Chief Inspector of Mines in 1899, when he was aged 41. In 1914 the inspection of mines became a task divorced from the duties of the Government Geologist⁸⁷, and separate inspectors were employed. Twelvetrees was then able to devote the whole of his attentions to geological matters.

He was a prolific writer, producing 177 reports on Tasmanian geology alone in the twenty years of his employ. In addition he published works in Russian and German scientific journals on a wide variety of geological subjects. He became a Fellow of the Royal Geographical Society, London, and of the Royal Society in Tasmania, was a keen Greek and Latin scholar and member of many learned societies both in England and Europe. He was awarded the Royal Society of N.S.W. Clarke Memorial Medal for research into Natural Science⁸⁸.

Twelvetrees was a very able geologist, with a keen eye for detail and precision. He took an active interest in the training of his junior colleagues. He often spent long periods in the field, writing to the Librarian at regular intervals asking for maps, charts, books, sometimes equipment such as 'the new tape measure from cupboard'⁸⁹ and once, a tea strainer for a billy, as the librarian had sent one suitable only for use in a cup⁹⁰. In addition to the geological expeditions, Twelvetrees led a party into wild and virtually unexplored country in 1908, in search of a route for the proposed Great Western Railway⁹¹, for the Lands and Surveys Department. The chemist, L. K. Ward, led a party from Gormanston to survey the northern part of the proposed route.

Although the retirement age was, in those days, 70 years Twelvetrees was asked to stay on for another twelve months to catalogue the rock collection housed in the Queen Victoria Museum⁹². The collection was Twelvetrees idea, and he was largely responsible for the extensions to the Museum which were intended to house the Survey's rock, mineral and fossil collections, which until then had no permanent home. Twelvetrees was still working on this catalogue when he died.

Twelvetrees established the Geological Survey library and expanded the scope and role of the Government Geologist from that of inspection of individual mines to a useful and systematic study of whole mineral fields. Loftus Hills notes that the instigation of a "systematic study of prescribed fields" was a feat of some considerable merit, as Twelvetrees had to balance the interests of the 'practical miners' who were distrustful, if not outright antagonistic of the 'theoretical geologists', and the necessity of scientific investigations which may show no immediately obvious advantage to the current mining operations⁹³.

Twelvetrees was a far-sighted man, who organised the Geological Survey into a long term plan of systematic studies of Tasmania's mineral deposits, encouraging and fostering these investigations to completion. He recognised the need and value of a proper geological library, both of reports and rock specimens.

Twelvetrees was a man of rare insight—an excellent geologist, who obviously enjoyed his work very much, with tremendous geological knowledge and ability to interpret, understand and write valuable and interesting papers on the subject; evidently he was a good organiser, was able to work well with people, was kindly and tactful. His contribution to Tasmanian geology was quite outstanding. He died on 7 November 1919 of pneumonia and influenza, aged 71⁹⁴.

The twenty years under the guidance of Twelvetrees were possibly the most productive years the Survey has ever seen. Bulletins were produced regularly, on a wide range of topics: goldfields of Mangana, Mathinna, Lisle; tinfields of North Dundas, X River; mining districts of Zeehan, Scamander, Mt

Balfour, Mt Farrel, Mt Claude, Gunns Plains; oil shale and coal fields. In addition, innumerable callers and enquiries were satisfied with replies, Twelvetrees even having urgent correspondence sent on to him in the field to answer.

On Twelvetrees' death, the position of Government Geologist went to Hills, whom Twelvetrees had trained, and regarded as a suitable successor. Twelvetrees wrote to Wallace "I feel considerable satisfaction at the prospect of being succeeded at the appointed time by Loftus Hills, who is known to the Department and myself as a good officer, well acquainted with our mining fields and metallurgy, and capable of doing the State credit in the position which he will be called upon to occupy"⁹⁵.

Loftus Hills was born in Deloraine, Tasmania, on 31 March 1885, and was educated at Launceston Grammar School and the University of Tasmania, where he graduated with a Bachelor of Science degree in 1907, a Master of Science (in metallurgy) in 1913, and in 1923 received the first science doctorate awarded by the University. Before being appointed Assistant Government Geologist in 1912, Hills worked as a chemist, assayer and metallurgist and part-time lecturer in geology⁹⁶.

Hills was an excellent geologist, and produced numerous papers and reports dealing with the West Coast mining districts. Hills took leave from the Survey in January 1916 to join, firstly the Australian Imperial Forces, then the 4th Australian Tunnelling Company, transferring to the 1st Tunnelling Company in France. After the War he returned from active service and resumed duties as Assistant Government Geologist in May 1919. On the death of W. H. Twelvetrees he was appointed Government Geologist⁹⁷.

In 1921 the Geological Survey was re-organised, with Hills becoming Director of the Geological Survey, and the Assistant Government Geologists were retitled 'Government Geologists'. During his term as Government Geologist Hills directed and became involved in several major studies of the mineral fields of the State—following in the tradition set down by his predecessor. One of Hills' largest works was a comprehensive survey of the coal resources of Tasmania, in which he was assisted by his colleagues P. B. Nye, H. G. W. Keid, and A. M. Reid.

Whilst Hills was a brilliant scholar, a very able geologist and a man of integrity and principles, he evidently lacked the same tactful and persuasive nature of his predecessor Twelvetrees. Hills' straightforward way of thinking and speaking his mind was not always appreciated by the recipients of his advice.

In the early 1920's something of an 'oil boom' began in Tasmania. Several companies were set up and took up ground in the Latrobe and Pelion areas in a search for oil. The largest of these companies was the Adelaide Oil Company Ltd, which was formed in March 1920. Throughout 1921 and 1922 Hills waged a war of words with the directors of the Adelaide Oil Exploration Company, writing vociferously to both local and interstate papers⁹⁸ and to the Minister. Hills took exception to the wildly optimistic claims made by the 'oil boomsters', and regarded that his duty lay in warning the public against their activities⁹⁹.

The Adelaide Oil Company claimed, in January 1921, to hold land which "contains the greatest potential amount of wealth hitherto controlled by any one concern in the British Empire and probably the whole world, outside the States of America", and promised returns of up to five thousand pounds (\$10 000) per ten pound (\$20) share from oil, which was "...there in millions of tons... in the form of carbonised asphaltum—that is, inspissated or dried up petroleum", noting that "such

fabulous returns are not an uncommon thing in new oilfields"¹⁰⁰.

Hills' outbursts to the press, under banners such as 'Foredoomed to Failure'¹⁰¹ and 'Oil Indications—A Serious Mis-statement'¹⁰² were countered by the company releasing vitriolic press statements and sending circulars to the shareholders.

One such circular devotes almost two of the four pages to an attack on Hills—starting off with a referral to Hills' statements as 'miserable whimperings'¹⁰³. By October 1921 the company no longer referred to 'inspissated petroleum' but were planning to extract oil from the 'rich-in-oil material' (i.e. pelionite) under their control. In December 1921 they asked the Government for exclusive rights to search for oil and oil-producing substances in Tasmania for five years¹⁰⁴—they proposed spending £10 000 during each of the five years, after which they would be allowed to hold permanently an area "not less than one hundred square miles" for oil producing purposes. Not surprisingly, this offer was rejected.

In 1922 the Mersey Valley Oil Co. Ltd and the Tasman Oil Products Co. NL entered the arena. Hills described the Mersey Valley Oil Co. Ltd prospectus as "very entertaining and would regard it as on a parallel with Punch as a source of humour if it were not for the fact that money badly needed for other purposes is going to be expended with no hope of getting the results expected".

Late in 1922 a new Minister for Mines was appointed. The outgoing Minister, Sir Elliot Lewis, wrote to the Secretary of Mines in June 1922: "I had hoped that I had had the foundation for the harmonious working of the several branches of the Mines Department. I have apparently failed lamentably in my endeavours and can only hope that my successor will be able to obtain more satisfactory results".

His successor, Earnest F. Blyth, was made Minister in August 1922¹⁰⁵, and in September¹⁰⁶ was made Director of one of the companies (the Standard Oil Company of Australia Ltd) involved in the search for oil. Blyth did not see eye to eye with Hills on his opinions relating to the oil search and Hills' remonstrances continued, although in late 1922 Hills had matters closer to home to worry about. Working relationships with most of the staff became so strained that an enquiry was held in January 1923 by the Public Service Commissioner "In Connection with Alleged Friction in the Mines Department".

Correspondence was produced¹⁰⁷ to show that Hills had managed to have disagreements with almost everyone in the Department—the former Secretary Wallace, the current Secretary Pretzman, the Inspectors, the Minister, and most of the Survey staff. The Commissioner heard the staff reel off lists of grievances, and Pretzman had an enormous store of petty and trivial incidents involving Hills about which he complained at length. The main problem seems to have been that (in Pretzman's words) "He (Hills) does not seem to have the tact, and he seems to have a domineering spirit"¹⁰⁸.

Hills was relieved of his duties as Director while the Commissioner considered the case, and would have been reinstated had the Survey staff (the two Reids, Bath, Edwards the Draftsman, Nye and Manson) not written to the Minister¹⁰⁹ stating that "his reinstatement would lead to constant friction in the Geological Survey and other branches of the Mines Department". So although Hills was not found to have done any wrong, the Commissioner resolved the issue by abolishing the position of Director, Geological Survey and recommending that the Launceston office be moved to Hobart.

After leaving the Survey, Hills worked as a geological consultant, visiting many mineral fields within Australia and the goldfields in Fiji. This was followed by a stint as Chief Chemist with the Commonwealth Department of Supply (1938-46) where he was engaged in munitions manufacture. During this period he changed his name to Clive Loftus Hills¹¹⁰.

He returned to Tasmania after World War II and again worked as a geological consultant and mining entrepreneur, successfully standing as a candidate for the 1950 Hobart City Council elections. Hills died in December 1967 aged 83¹¹¹.

Following the departure of Hills, the Survey in Launceston was left to the running of A. M. Reid and P. B. Nye jointly as Government Geologists.

Reid came to the survey in 1917, aged 35, as Assistant Government Geologist with an impressive array of engineering and geological qualifications. He held diplomas in economic geology, metallurgy, assaying, surveying, and mine management, and was a member of the Australasian Institute of Engineers. He had worked in Africa as an economic geologist to J. Hoffman and Co., Johannesburg; as a mine manager to De Beers Consolidated Diamond Mines, Cape Colony; and as a Metallurgist to the Niekerk Gold Mining Co., and the Witwatersrand Deep Mining Co. In Western Australia he had been employed with the Golden Pole Mining Co. as an assayer, chemist and mine manager, while in Tasmania he was known to many mining companies as a design and construction engineer and mine surveyor. He had spent 4 1/2 years as a railway engineer with the Public Works Department, in charge of Surveys¹¹².

Reid made a valuable addition to the Survey staff. Hills allotted to him the more difficult of the geological investigations and was full of praise for his work. Local companies repeatedly requested¹¹³ the Department to allow A. M. Reid to examine their prospects, and his engineering expertise was always in demand. Reid produced eight Bulletins during his stay in the Department, as well as writing many other geological reports.

On the resignation of Hills, Reid was left on an equal footing with Nye as Government Geologist, and they continued conducting geological investigations and writing reports of their findings. Interruptions to the preferred work schedule were abhorred by Reid, who regularly lamented in his annual reports of the amount of time needed to be spent on public enquiries¹¹⁴.

Reid became increasingly involved in matters of policy and planning, having very definite views on the direction the Department should take, and was, after some lobbying, appointed as Director of Mines in 1926. This left Nye as the sole Government Geologist.

P. B. Nye was appointed as Assistant Government Geologist in September 1920, and came to the post with a Degree in engineering from the University of Melbourne and 15 months experience on the Cloncurry copper fields¹¹⁵. Under Hills' direction Nye was set to work on underground water resource investigations and smaller geological examinations of various mines and prospects. In 1927 two assistants, F. Blake and Q. J. Henderson (first and second year geology students respectively), were appointed to assist Nye¹¹⁶.

In addition to answering the never ending stream of public enquiries and letters, and researching and writing many geological reports, Nye also lectured in geology at the University¹¹⁷.

In September 1934 Nye was granted leave of absence to take up a position as Chief Executive of an aerial survey of the Northern Territory, conducted by the Commonwealth, Western Australian and Queensland Governments. Leave was extended annually until 1941¹¹⁸, when he returned to the job of Government Geologist for three months before resigning in November 1941.

During Nye's leave of absence, Frank Blake was appointed Acting Government Geologist until he left for war service in 1940. After the war he returned to the Department and worked ably and competently, both as geologist and draftsman, until he retired in 1960¹¹⁹.

Blake's departure left former cadet Quentin John Henderson, now a Field Geologist, as the sole geologist on the Survey staff, until Nye returned briefly in 1941. Following Nye's formal resignation as Government Geologist in November 1941, Henderson was again alone until the appointment, in September 1942¹²⁰, of David R. Thomas as Government Geologist. Thomas stayed at the post only fifteen months, during which time he wrote a very valuable treatise on Tasmanian graptolite faunas and made studies of the tinfields of Balfour and Blue Tier. One of the reasons for Thomas' short stay was undoubtedly the idiosyncratic nature of the current Director, Williams, who at that stage actively discouraged publication of any geological data.

Following Thomas' resignation, the post of Government Geologist was taken up in November 1944 by S. W. Carey¹²¹, who left the position in October 1946 to take the Chair of Geology at the University of Tasmania¹²². Carey carried out geological investigations covering an enormous variety of subjects in all parts of the State, but none of these were printed as Bulletins or Mineral Resource Records due to the policy of non-publication.

The title of 'Government Geologist' was changed in 1946 and the position of head of the Survey retitled 'Chief Geologist'. The first to fill the position with this new title was Harold Guy Walker Keid¹²³, who had first jointed the Department as 'third field geologist' in 1920¹²⁴ when Loftus Hills was Director of the Geological Survey, but was put off in 1922 when his position was abolished¹²⁵. Hills had wished to retain the services of the chemist, Bath, who was holding down a temporary position, and wrote to the Secretary suggesting that the chemist's job be made permanent at the expense of one of the geological positions¹²⁶ and Keid, who was a recent graduate with little experience, had not measured up to Hills' own exacting standards. Hills declined to recommend an annual increment for both Nye and Keid in August 1921¹²⁷, and after receiving an unfavourable report from Reid on Keid's work¹²⁸, Hills recommended the position of third geologist be abolished.

During his short two year stay, Keid assisted in the preparation of the Coal Bulletin, and assisted A. M. Reid during a number of geological investigations. Neither Nye nor Keid were thanked in the preface of the 1922 Coal Bulletin by Hills, although the typist and the draftsman were both mentioned, a point which annoyed Nye in particular¹²⁹.

In 1942 Keid returned to the Department as a Field Geologist¹³⁰ and for four years made routine geological examinations of tin and underground water prospects, before being appointed as Chief Geologist in 1946¹³¹.

During his 14 years as Chief Geologist Keid concentrated on matters of a supervisory nature, making frequent trips to drilling operations and the regional depots at Lorinna, Port Davey and Zeehan which had been established by Williams earlier, and were now centres of regional mapping activities. Keid retired in 1960¹³².

Following Keid's retirement, Terrence D. Hughes was made Chief Geologist. Hughes started work at the Department in 1929¹³³ as a field assistant, and was made draftsman to the Geological Survey in 1935¹³⁴, leaving in 1940¹³⁵ for military service for the duration of the war. Hughes returned to the Department after the war, took a year's leave of absence to study in Sydney, and was promoted to the position of geologist in November 1947¹³⁶. Hughes was made a senior geologist in 1955¹³⁷ and became Chief Geologist in 1960¹³⁸. During Hughes' term, at the recommendation of the Director Symons, the Geological Survey was divided into three branches: Economic Geology, Regional Mapping and Engineering. This re-arrangement was completed in 1964¹³⁹. Hughes worked in all parts of the State, mainly in the area of economic geology, although he also made significant

contributions to regional mapping and engineering geology. Hughes resigned in 1965¹⁴⁰ and was replaced by Ian Blore Jennings.

Jennings studied geology at the University of Tasmania as a mature-aged student after having served in the RAAF in World War II, being one of S. W. Carey's first students. After graduating in 1949, Jennings spent five years working as a geologist with the Hydro-Electric Commission, before joining the Department as a field geologist in 1954¹⁴¹. The first six years with the Department were spent at the regional mapping centres of Lorinna, Wynyard and Port Davey. Jennings was made Chief Geologist in 1964¹⁴², a post he held until he retired in 1985¹⁴³.

THE INSPECTORS

From the inception of the Department of Mines in 1882 until 1914 the duties of Mines Inspector were combined with those of the Government Geologist. Gustav Thureau was the first Mines Inspector in the State, being appointed in 1882¹⁴⁴ as 'Mines Inspector and Mining Geologist'. On his retirement in 1889¹⁴⁵ Alexander Montgomery was appointed 'Mines Inspector and Geological Surveyor', and was based in Launceston. Montgomery had to manage single handed until a second inspector, James Harrison, was appointed in January 1892¹⁴⁶ and stationed at Zeehan.

Harrison, who was born in Ireland in 1845, had worked on the British railways in India as an engine driver, and in the mineral fields of Victoria managing mines, batteries, driving engines and operating diamond drills. The twelve months prior to his appointment in 1893 as inspector were spent in charge of a Departmental diamond drill. Harrison, a keen mason and member of the local hospital board, helped to found the Zeehan School of Mines¹⁴⁷.

In 1893 Montgomery's title became 'Chief Inspector of Mines'. Following Montgomery's resignation in 1896, James Harcourt Smith was appointed Chief Inspector of Mines and Geological Surveyor. In 1897 a third inspector, Michael J. Griffin, was appointed and stationed at Gladstone¹⁴⁸. Smith died in 1899, and the position of Chief Inspector of Mines was filled by the new Government Geologist, William Harper Twelvetrees.

To assist with the ever-increasing workload, Inspector Harrison at Zeehan was given an assistant in 1900, one C. Curtin, who was stationed at Queenstown¹⁴⁹. In 1903 Inspector Griffin at Gladstone was relieved of his duties relating to the Mt Cameron Water Race Board so he could spend more of his time on matters relating to mines inspection¹⁵⁰.

In 1905 Harrison's assistant, C. Curtin, was given the Lyell district to supervise as Inspector of Mines. The demands on the inspector's time continued to increase, so that in 1914 the first full-time Inspector of Mines, James O. Hudson, was appointed¹⁵¹. This left the Government Geologist, W. H. Twelvetrees, free to concentrate on matters of a geological nature.

One month after Hudson taking office, on 16 June 1914, war broke out and a number of mines closed down. However, sufficient were kept open for Inspectors Harrison (Zeehan), Curtin (Queenstown) and Griffin (Launceston) to remain at their stations. In 1915 Hudson was made State Mining Engineer in addition to being Chief Inspector of Mines,

furnishing reports in 1915 and 1916¹⁵², but this title seems to have then languished until James Balfour Scott was appointed State Mining Engineer in 1927¹⁵³.

In 1917 Inspector Griffin in Launceston retired and a reshuffle saw Inspector Curtin move from Queenstown to Launceston and Inspector H. A. Vaudeau appointed to take Curtin's place in Queenstown. Griffin was then 70 years old and had spent 29 years in the employ of the Department¹⁵⁴. Two years later, in 1919, Inspector Harrison (Zeehan) retired after 37 years service as Mines Inspector, and was replaced by Vaudeau from Queenstown. A new recruit, W. H. Williams from the Queensland Mines Department, filled Vaudeau's old spot in Queenstown¹⁵⁵. When Curtin retired in 1927, Williams moved to Launceston, and one J. J. Andrews was appointed to fill Williams' former position¹⁵⁶. The same year saw James Balfour Scott made State Mining Engineer, a position he held until 1933 when he became Secretary for Mines on Pretyman's retirement. Scott retained the duties of State Mining Engineer whilst Secretary. Hudson continued in his duties as Chief Inspector of Mines and Explosives. The exact title of his position from 1917-1927 was 'Chief Inspector of Mines and Chief Inspector of Magazines and Explosives'. After 1927 the 'Magazines' was dropped from the latter title. In 1936 this title changed to 'Chief Inspector of Explosives and Inflammable Liquids'.

In November 1937 Hudson retired¹⁵⁷ and the chief's position was filled by Inspector W. H. Williams, who in 1937 was titled 'Chief Inspector of Mines and Inflammable Material'. This title only lasted one year, being changed in 1938 to 'Chief Inspector of Mines and Chief Inspector of Explosives'. When Scott died in 1939 Williams migrated to the position of Head of Department, first as Acting Secretary then, in 1940, as Director of Mines. Hudson was persuaded to come out of retirement, and filled the chief inspector's position in a temporary 'acting' capacity for four years until 1944¹⁵⁸, when Williams, in addition to the Directorship, took up the titles of Chief Inspector of Mines and Chief Inspector of Explosives. The title of State Mining Engineer also remained with Williams, as J. B. Scott had incorporated this position with that of Head of Department. Williams retired in 1954. The incoming Director, J. G. Symons, retained the titles Chief Inspector of Mines, Chief Inspector of Explosives, and State Mining Engineer.

Symons retired in 1980 and was replaced by the current director, Mr H. Murchie. The titles 'Chief Inspector of Mines' and 'Chief Inspector of Explosives' were relinquished by the Director in 1984, and each position is now filled separately.

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HEADS OF DEPARTMENT

Period	Occupant	Title	Comment
1882-1886	Bernard Shaw	Secretary for Mines	Resigned
1886-1897	Francis Belstead	Secretary for Mines	Retired
1898-1920	William Henry Wallace	Secretary for Mines	Died
1920-1926	William Arthur Pretymann	Secretary for Mines	Replaced
1926-1930	Alexander McIntosh Reid	Director of Mines	Sacked
1930-1933	William Arthur Pretymann	Secretary for Mines	Retired
1933-1939	James Balfour Scott	Secretary for Mines	Died
1939-1954	William Henry Williams	Director of Mines	Retired
1954-1980	Jack Gilroy Symons	Director of Mines	Retired
1980-	Hugh Murchie	Director of Mines	Current

HEADS OF GEOLOGY

Period	Occupant	Title	Comment
1882-1889	Gustav Thureau	Mines Inspector & Mining Geologist	Retired
1889-1896	Alexander Montgomery	Mines Inspector & Geological Surveyor	Resigned
1897-1899	James Harcourt Smith	Chief Inspector of Mines and Geological Surveyor	Died
1899-1919	William Harper Twelvetrees	Government Geologist & Chief Inspector of Mines	Died
1919-1923	Clive Loftus Hills	Director Geological Survey	Resigned
1923-1926	Alexander McIntosh Reid	Government Geologist	Became Director of Mines
1923-1934) 1941)	Percival Bartlett Nye	Government Geologist	Resigned
1934-1940	Frank Blake	Acting Government Geologist	Resumed previous duties
1941	Quentin John Henderson	Field Geologist	Continued duties
1944-1946	Samuel Warren Carey	Government Geologist	Resigned
1946-1960	Harold Guy Walker Keid	Chief Geologist	Retired
1960-1965	Terrence D. Hughes	Chief Geologist	Resigned
1965-1985	Ian Blore Jennings	Chief Geologist	Retired
1985-	Michael Rodney Hargreaves	Deputy Director of Mines and Chief Geologist	Current

HEADS OF THE INSPECTORATE

Period	Occupant	Title	Comment
1882-1889	Gustav Thureau	Inspector of Mines	Retired
	Alexander Montgomery	Inspector of Mines, Chief Inspector of Mines	Resigned
	James Harcourt Smith	Chief Inspector of Mines	Died
	William Harper Twelvetrees	Chief Inspector of Mines	
1914	James O. Hudson	Chief Inspector of Mines	Retired
1915-1916		State Mining Engineer	
1917-1927		Chief Inspector of Mines, Chief Inspector of Magazines & Explosives	
1928-1935		Chief Inspector of Mines, Chief Inspector of Explosives	
1936-1937		Chief Inspector of Mines, Chief Inspector of Explosives & Inflammable Liquids	
1937	William Henry Williams	Chief Inspector of Mines, Chief Inspector of Explosives & Inflammable Material	Promoted
1938-1939		Chief Inspector of Mines, Chief Inspector of Explosives	
1939-1943	James O. Hudson	Acting Chief Inspector of Mines, Acting Chief Inspector of Explosives	Retired
1944-1954	William Henry Williams (Director)	Chief Inspector of Mines, Chief Inspector of Explosives, State Mining Engineer	Retired
1954-1980	Jack Gilroy Symons	Chief Inspector of Mines, Chief Inspector of Explosives, State Mining Engineer	Retired
1980-	Hugh Murchie	Chief Inspector of Mines, Chief Inspector of Explosives, State Mining Engineer	Titles relinquished
1984-1986	Roy C. Thomas	State Mining Engineer	Position reorganised
1986-1988	Roy C. Thomas	Chief Inspector of Explosives	Retired
1986-	Roger Billingham	Chief Inspector of Mines	Current
1989-	Eric Lake	Chief Inspector of Explosives	Current

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