**GROSVENOR MINE INQUIRY STATUTORY TICKETS SUBMISSION 1**

**All persons seeking a Queensland Coal Mining Statutory Ticket who come from other Mining Jurisdictions as a minimum must.**

1. **Undertake the full applicable Queensland Mining Law Examination successfully**
2. **Undertake the applicable Board of Examiners Panel Examination successfully**
3. **Possess the applicable Recognised Safety and Risk Management Competencies (Shane Davis Coronial Inquiry- Annette Hennessy 2005)**
4. **For both Surface and Underground Coal Statutory Certificates and Engineering Senior Supervisor hold the relevant competencies for the hazards that exist at the Mine.**

**For example**

1. **The Underground Strata, Ventilation, Gas and Spontaneous**
2. **For the open cut strata, mobile plant, explosives and water**
3. **Engineering/Maintenance Senior Supervisors; Emergency Management, preparedness and response**
4. **There be new specific competency requirements for Site Senior Executive for Underground and Open Cut Coal Mines specific to the risks at the 2 types of Operations.**

**GROSVENOR MINE INQUIRY STATUTORY TICKETS SUBMISSION 2**

**It is recommended that the procedures for granting statutory certificates for underground coal mining and the conditions under which they are awarded, be reviewed.**

**In particular, it is recommended that certificates of Underground Mine Manager and Ventilation Officer not be granted for life**

**That a system needs to be developed and put into effect as soon as practicable that requires certificate holders to demonstrate their fitness to retain the certificate of competency on a regular basis, at intervals of not less than three and not more than five years.**

**FINDINGS AND RECOMMENDATIONS PREVIOUS QLD MINING ROYAL COMMISSIONS and MINING WARDEN INQUIRIES**

1. ***The Commission are of opinion that, in the majority of cases, the persons employed to manage collieries are very much below the standard in intelligence, and knowledge of mining, that should be required of men filling such responsible and important positions ; and that the employment of á higher class of men as managers would not only do much to lessen the danger from accidents, but would also be advantageous to the owners, inasmuch as it would lead to the better working of their mines.***

**1900 Torbanlea Royal Commission.**

1. ***It appears no one questioned the course of conduct proposed, from which it follows that all present were apparently in agreement with the assessment of the position made by the manager, the Inspector of Mines and other members of the team when they conferred from time to time.***

***It appears that the failure of all these people to advert to the distinct possibility of danger from explosion stems from widespread lack of knowledge of the danger associated with conditions which prevailed that night.***

***That thought there was still a chance of controlling the fire by underground sealing is made manifest by their going underground on the last occasion. Mr Roach's conversations with the Inspector of Mines and the Mine Manager immediately before the explosion serve to confirm this.***

***Whether a more accurate assessment of the position should have been made, and the men withdrawn, is, no doubt, open to question, but the fact remains that not a single person put forward a contrary proposal at any stage.***

**BOX FLAT Mining Warden's Court Inquiry November 7, 1972**

1. **KIANGA 1975**

***(b) changes be made in the Queensland Coal Mining Act to provide for:***

***• preparatory seals and the recognition and delineation of responsibilities of persons with technical authority superior to a manager.***

***Notwithstanding the fact that the Manager and Superintendent were actively involved, the mine organisation underground on the day was wholly inadequate in that:-***

***1. No senior officials were left in charge throughout the period;***

***2. No regular comprehensive sampling at specific sampling points was initiated;***

***3. No checks were made to see that men did not enter goaf areas without the knowledge of the Deputy in charge;***

***4. No attempt was made to get as near as possible to the fire site, i.e., the belt heading just outbye No.7 cut-through, after Jump and Allison were in the vicinity at about***

***11.30a.m.***

***LEGISLATION***

***(d) Provision be made in mines liable to spontaneous combustion, at the entrance to every pillar section for preparatory seals prior to the commencement of pillar extraction operations. The preparations should be approved by the District Mines Inspectors. The seals need not necessarily be explosion proof, but should be capable of rapid erection.***

***(e) The Queensland Coal Mining Act should be amended to provide for persons with technical authority superior to a Manager. These persons should be qualified managers under the Act and should bear the same statutory liability as Managers in respect to any acts to which they are party.***

1. ***STATUTORY CERTIFICATES***

***We make one final observation with regard to legislation.***

***The Kianga Inquiry of 1975 recommended that Queensland and New South Wales coal mine safety legislation be standardised. Progress in this direction over the subsequent twenty years appears to have been glacial.***

***A number of personnel in positions of authority at Moura No 2 had come from New South Wales, the registered mine manager Schaus being a case in point.***

***Learning and applying different legislation intended to manage the same hazards must be seen as unnecessarily wasteful of the time and effort of key industry personnel.***

***It is, moreover, a hazard source of itself with State and Federal Mutual Recognition Acts of 1992 now overruling any requirement for a statutory official appointed from New South Wales to demonstrate knowledge of the Queensland coal mining legislation, and vice versa. There is a need for common legislation, finally, to be progressed into existence and at the Federal level if that is what it takes.***

***As demonstrated repeatedly in evidence, it should not be taken for granted that a statutory certificate of competency to practise as a mine manager, undermanager or deputy carries an assurance that the person possessing it is maintaining, and where necessary developing, the original knowledge base required for the appointment.***

***It is recommended, therefore, that the procedures for granting statutory certificates for underground coal mining and the conditions under which they are awarded, be reviewed. In particular, it is recommended that certificates not be granted for life and that a system needs to be developed and put into effect as soon as practicable that requires certificate holders to demonstrate their fitness to retain the certificate of competency on a regular basis, at intervals of not less than three and not more than five years.***

***The process should aim to ensure that certificate holders maintain a sound knowledge base on, and keep abreast of, technical developments in coal mining and most particularly those relevant to coal mine safety.***

**MOURA NO 2 FINDINGS 1996**

**SIR MICHAEL FARADY**

***In conclusion, we cannot but express a hope, that some step may be taken without delay, with a view to better afford a better education to the persons engaged to working in Colleries.***

***When attending the late Inquest we were very much struck with the fact that more than half of the pitmen who gave evidence, some of them of great intelligence, and one master wasteman were unable to write, or even to sign their name as witnesses.***

***Among the very many thousand who are now continually engaged in the coal mines, there will always be individuals of strong natural powers, who if they had mastered the elements of the sciences, might be enabled to invent new methods, or at all events, would be far more capable than people unconnected with the business, to appreciate the dangers to which they are exposed and to correctly judge of the adaption of philosophical principles to practice.***

***We believe therefore, that if the education of the miners generally and especially those that act over them, can be materially raised, it will conduce to the security of the lives of the men, and perfecting the art of mining, more effectively than any system of Parliamentary Inspection which could be devised.***

**Science in the pits: Michael Faraday, Charles Lyell and the home office enquiry into the explosion at Haswell Colliery, country Durham, in 1844**

**(95 Men and Boys perished in the Haswell Colliery Disaster 29th September 1844)**

**GROSVENOR MINE AND TORBANLEA SIMILARITIES**

**The circumstance of the multi-fatality explosion at Torbanlea are the closest to the circumstances at Grosvenor in the history of Queensland Underground Coal Mining Disasters.**

(I have included some parts of the Torbanlea Royal Commission including testimony of the Mine Owner and Mine Manager at the end of this submission.)

**Five Coal Face Mine Workers were involved in each.**

**They were Contract Coal Miners, not permanently employed by the Mine Operator/Owner**

**The most likely source of the Methane gas that exploded was through floor blowers.**

**The blowers came from a gassy seam some 2 feet below the mined seam and the inter-burden stone band that was too hard to remove except by explosive.**

**They were mining in the immediate vicinity of a fault and no methane was detected 15 minutes before the fatal explosion.**

**After the incident it was noted by all except the Mine Manager that there was evidence of floor heave that was not there prior to the explosion.**

**The parallels between the apparent attitudes of Mine Owners, General Managers (Site Senior Executives today), Underground Mine Managers and lastly the Mines Inspectors are proof yet again; that despite the in some ways exponential technological progress in the last 120 years has achieved little in the way of improving the way safety in managed in Queensland Coal Mines.**

**Those appointed Managers were**

1. **Almost exclusively from “The Old Country” as they all refer to it in the Testimony. The OLD COUNTRY covered Scotland, Wales and England.**
2. **Only 2 had any Managers Certificates and only one of those had done any study and passed exams to obtain it. The other had received a Certificate of Service as he was working as a Mine Manager when the Coal Mining Act of 1872 was passed.**
3. **Most had not worked in methane rich mines in the Old Country or “Fiery Mines” as they refer to them.**
4. **The only “Queensland Industry” Manager was the Manager at Waterstone Colliery and he had no Statutory Qualifications at all**

**MINING DISASTER MANAGERS INVOLVING METHANE EXPLOSIONS and SPONTANEOUS COMBUSTION**

1. TORBANLEA J SHARP Great Britain
2. MT MULLIGAN ***Manager (Mr. T. J. Evans),who held a colliery manager's certificate from one of the other States (either Victoria or Western Australia) and whose ticket was registered in Queensland.***
3. KIANGA Great Britain
4. BOX FLAT I cannot ascertain
5. MOURA No 4 Great Britain.
6. MOURA No 2 NSW
7. GROSVENOR South Africa

**Non-Fatality Related Major Spontaneous Combustion Events in Queensland since 2001 when the CMSHR 2001 came into effect**

1. **Cook Colliery 2006** Continental Europe
2. **Carborough Downs 2012** Continental Europe
3. **North Goonyella 7 North 2014** Continental Europe
4. **North Goonyella 9 North** Continental Europe
5. **Grosvenor Mine** South Africa

**All these events had a common factor.**

**The Underground Mine Manager was not from Queensland, not even from Australia.**

**The one Mine Manager was the Manager at Cook Colliery, Carborough Downs, and North Goonyella 2018 9 Nth Heating, fire and methane explosion and emergency sealing at the surface .**

**He was also the Weekend Mine Manager at North Goonyella for the 7Nth Spontaneous Combustion heating.**

**I am also aware that he is supposed to also hold the Ventilation Officers Competency.**

**Despite this appalling record he has not been asked to show cause why he should not lose his Statutory Qualifications.**

**Given the still secret Mines Department Investigation it seems unlikely he ever will.**

**The are reports that he was employed in 2020 at Cook Colliery as the SSE.**

**ATTEMPTS TO CHANGE THE UNDERGROUND MINE MANAGER POSITION SINCE 1999**

**The first and documented attempt to change the position of the UMM was brought to the Coal Mining Advisory Council between 2006 and 2010.**

**The actual proposal and the minutes of the discussion and the vote to reject it would be in the files of the Advisory Council.**

**The reason advanced was in the difficulty in recruiting suitable qualified and experienced Mine Managers.**

**The Appointed Mining Company Representatives who formally advocated for an submitted the proposal in person, was at that time the SSE at Anglo Coals Capcoal Mines near Middlemount.**

**The SSE was from New South Wales where he obtained his Statutory Qualifications, including I believe a First Class Ticket.**

**He brought a written proposal to remove the Requirement for the Underground Mine Manager to hold a First Class Ticket.**

**The proposal was that so long as there were persons at the Mine who between them held ALL the Required mandated Competencies of a Mine Manager, then the Mine could appoint the Underground Mine Manager of their choosing, so long as they held the SSE Competency and from what I recall the Mine Manager Risk Management Competency.**

**The proposal was rejected by all the Mineworker and Mines Inspectorate Nominees.**

**GROSVENOR MINE SSE GIVING DIRECTIONS TO UMM WITHOUT HOLDING COMPETENCIES**

**A complaint was lodged to the Mines Department about the SSE at Grosvenor Mine issuing Technical Directions to the UMM without himself having the competencies as required under the CMSHA 1999.**

**Following a Mines Inspectorate Investigation, a Level 3 Compliance Meeting was held.**

**The findings of the Investigation, details of the meeting and outline of the discussion are contained in the attached Mine Record Entry dated the 26th of April 2017**

**Some of the findings were.**

***A thorough investigation of all these matters was conducted by Inspector Brennan which concluded with the findings that this could only be verified for one matter. The evidence for this matter indicated that a breach of section 60(6)of the Act;***

***60 Additional requirements for management of underground mines***

***(1) This section applies to an underground mine.***

***(6) A person must not give a direction to the underground mine manager about a technical matter in relation to the underground mine unless the person giving the direction is the holder of a first class certificate of competency for an underground coal mine.***

**The investigation also revealed the use of a process in the Grosvenor mine Safety and Health Management System that authorised non- statutory personnel to issue technical directions to statutory personnel. The Inspectorate have determined that the use of this process is not in accordance with the intent of the Act and Regulations and should not be used. This has already been discussed with the current SSE for Grosvenor mine.**

**Mr Britton questioned the reasoning for the use of this process and gave examples of how he believed it use was of appropriate for persons who hold technical qualifications that are at a higher AQF level than those required for an ERZ Controller. He cited the case for a**

**Geotechnical engineer and a Ventilation officer who conduct activities in an ERZ Controllers area of responsibility and may give directions upon the findings of their work within his district.**

***Mr Britton requested that the requirement for persons who do not hold a statutory certificate of competency not giving directions to a person holding a statutory certificate of competency in charge of an Explosion Risk Zone be communicated to industry.***

I have been collating comments for some previous Mining Disasters for Public Submissions and these are from the 1900 Torbanlea Royal Commission.

**http://mineaccidents.com.au/uploads/report-of-the-royal-commission(1).pdf**

The Explosion killing five Mineworkers occurred on the 21st March 1990.

**The names of the victims were:- Alexander Houston, John Houston, James Johnston, Frederick Stephen Griggs, and Amos Gambie.**

There was a Royal Commission commenced on the 17th of April.

During the month of May they Inspected the Ipswich Coal Fields Mines and held hearings.

While the Royal Commission was conducting its Ipswich Public Hearings a “small” methane explosion on the 28th of May at the Waterstone Colliery resulted in the death of miner **Thomas Bootle**.

Mr Bootle passed away from his burn injuries in the 29th of May.

The circumstance of the multi-fatality explosion at Torbanlea are the closest to the circumstances at Grosvenor in the history of Queensland Underground Coal Mining.

The most likely source of the Methane gas that exploded was through floor blowers.

The blowers came from a gassy seam some 2 feet below the mined seam and the inter-burden stone band that was too hard to remove except by explosive.

They were mining in the immediate vicinity of a fault and no methane was detected 15 minutes before the fatal explosion.

After the incident it was noted by all except the Mine Manager that there was evidence of floor heave that was not there prior to the explosion.

The parallels between the apparent attitudes of Mine Owners, General Managers (Site Senior Executives today), Underground Mine Managers and lastly the Mines Inspectors are proof yet again that despite the in some ways exponential technological progress in the last 120 years has achieved little in the way of improving the way safety in managed in Queensland Coal Mines.

1. Those appointed Managers were almost exclusively from “The Old Country” as they all refer to it in the Testimony. The OLD COUNTRY covered Scotland, Wales and England.
2. Only 2 had any Managers Certificates and only one of those had done any study and passed exams to obtain it. The other had received a Certificate of Service as he was working as a Mine Manager when the Coal Mining Act of 1872 was passed.
3. Most had not worked in methane rich mines in the Old Country or “Fiery Mines” as they refer to them.
4. The only “Queensland Industry” Manager was the Manager at Waterstone Colliery and he had no Statutory Qualifications at all
5. Shift Overseers/Overmen, Shift Managers were likewise un-ticketed except for a couple who were recognised Firemen in the Old Country. The modern Mine Deputy or ERZC

I note that

The coal mine workers who perished in these disasters were all CONTRACT MINERS.

Employment was at the complete discretion of the Management.

The were paid on the tonnage they mined each day, with a daily target or DARG.

Not meet your DARG, then the next time contract positions in the mine came up for renewal (usually every 6 to 12 months) the contract teams would either get the worst face with the least most polluted air or miss out altogether.

Previously there had been 2 fatal methane explosions at the Torbanlea Mine

*Accident to Robert Ritchie. –*

***The next accident from inflammable gas took place on Sunday, the 9th of February, 1896, at 9 p.m.***

***The man who worked the shift preceding Ritchie's had knocked off on the Saturday night, when all was safe.***

***The accident took place near the main horse -road, about 100 yards from the shaft.***

***An overcast was being constructed over the horse -road, and it was in a small blind shaft in a little seam of' coal above 'the main seam that the gas accumulated, and the explosion occurred. Previously to that Ritchie had seen no gas in the place.***

***Ritchie was very severely burnt, and was laid up for seven weeks:***

**Inquire into and Report upon the Nature and Cause of a Disastrous Accident which Occurred at the Torbanlea Colliery on the 21st March, 1900, and also Concerning the Occurrence of Inflammable Gas in the Mines Situated ' on the Burrum and Ipswich Coal Fields ;**

***In Great Britain during the last quarter of a century 4,749 lives have been lost from this cause for an output of 4,093,174,187 tons, giving a death- rate of 1.1602 per million tons of coal raised.***

***The figures above cited indicate that the proportion of deaths in Queensland from explosions of gas is a little lower than it is in New South Wales, and a little higher than in Great Britain ; but still, as before stated, with the small output of coal in this Colony, it is quite impossible to institute a comparison of any great value.***

***The Commission in the course of their investigations found that, in many of the mines, the provisions of the Mining Act dealing with the regulation of mines, are to a very great extent disregarded on the part of the management.***

1. ***More especially, perhaps, is this the case with regard to the sections of the Act relating to the following subjects :-***
2. ***The inspection of mines before the men are allowed to proceed to their work ;***
3. ***The entry of the report of such inspection in a book ;***
4. ***The keeping of an accurate plan at the office at the mine, showing the workings up to within three months past ;***
5. ***The ventilation of mines in such a way as to supply not less than 100 cubic feet of pure air per minute for each man, boy, and horse employed in the colliery.***

***The Commission are of opinion that, in the majority of cases, the persons employed to manage collieries are very much below the standard in intelligence, and knowledge of mining, that should be required of men filling such responsible and important positions ; and that the employment of á higher class of men as managers would not only do much to lessen the danger from accidents, but would also be advantageous to the owners, inasmuch as it would lead to the better working of their mines.***

***RECOMMENDATIONS.***

***The Commission, in making recommendations with the view of lessening the liability to explosion of inflammable gas in collieries, are desirous of pointing out that they recognise the fact that as " The Mining Act of 1898." only came into operation during the month of March, 1899, there has not yet been sufficient time to fully test the efficacy of many of its provisions.***

***The Commission recommend :-***

***Management.***

1. ***That, after a date to be suggested by the Board of Examiners recently appointed under Section 1899 of the Act, no person shall be eligible to act as Manager of a Coal Mine in which more than ten persons are employed underground, unless he possess a First -Class Certificate of Competency, or a Certificate of Service***
2. ***That, after a date to be suggested by the Board of Examiners, no person shall be eligible to act as Underground Manager in any Coal Mine in which more than ten persons are employed underground, unless he hold at least a Second Class Certificate of Competency, or a Certificate of Service.***

***Inspection before Commencing Work.***

1. ***That inspections of coal mines shall be made with a locked safety -lamp, except in the case of a coal mine, or district in a coal mine, in which inflammable gas has not been found within the preceding twelve, months ; and that the person making such inspections shall, in some conspicuous part of every working place examined by him, mark the date of such inspection, and his initials.***
2. ***That any place in a coal mine in which inflammable gas is likely to be met with in any quantity, such as near faults, extensive goaves or wastes, or old workings, a safety -lamp shall be used in such inspection.***
3. ***5. That where safety -lamps are used, all exáminations and tests of, and repairs to such lamps shall be done by the owners.***

***Ventilation.***

1. ***That no air -way shall be less than\_ 18 square feet in section, and 3 feet in height.***
2. ***That no roadway, tunnel (or air -way which is ordinarily used as a travelling way by the workmen), shall be less than 20 square feet ' in section, and 4 feet in height.***
3. ***That where mines are ventilated by a furnace, fan, or other appliance, such shall be kept fully and continuously in operation, except in the case of any holiday or stoppage of work, when such appliance shall be started at least twenty - four hours before the commencement of work again in the mine.***
4. ***That the system of placing steam -pipes in the main shaft, or in a tunnel, where the men ascend or descend be discontinued. ; and that in all coal mines where such a system now exists the pipes shall be walled or boarded of, or other means be provided for the ingress and egress of the workmen employed.***
5. ***That in the driving of levels or rooms, bratticing, or some other. means, be employed to carry the air within five yards of the face of such levels or rooms:***
6. ***That in the second paragraph of Rule 1, section 242 'of the Act, the words " districts or splits " be defined as meaning, " Such part of a seam as has an independent intake. commencing - from a main intake air -course, and an independent return air -way terminating at a main return air -course.'-'***

***Use of Safety -lamps in Working`.***

***RECOMMENDATIONS 12 to 18***

***.***

***19. That, in view of the very great difference that exists between the working of coal and metalliferous mines, coal mines be worked under an entirely distinct Act.***

***WILLIAM H. RANDS, Chairman.***

***WILLIAM FRYAR.***

***THOMAS GLASSEY.***

***WILLIAM RANKIN.***

***LEWIS THOMAS.***

***TORBANLEA***

***Accident to Robert Ritchie. –***

***The next accident from inflammable gas took place on Sunday, the 9th of February, 1896, at 9 p.m.***

***The man who worked the shift preceding Ritchie's had knocked off on the Saturday night, when all was safe.***

***The accident took place near the main horse -road, about 100 yards from the shaft.***

***An overcast was being constructed over the horse -road, and it was in a small blind shaft in a little seam of' coal above 'the main seam that the gas accumulated, and the explosion occurred. Previously to that Ritchie had seen no gas in the place.***

***Ritchie was very severely burnt, and was laid up for seven weeks:***

***Accident to David Keene. -A***

***An accident occurred on the 26th February, 1896, to a miner named David Keene, from which he died two days afterwards.***

***The explosion of gas occurred in a cut -through between the pair of levels which was being***

***driven inside the fault, at a point about 2 chains from the end of the stone drift.***

***Keene was roadsman and fireman at the time.***

***The trap -door between the two levels, which conducted the air round into the bottom level, had been left open, and the current of air thus passed straight into the return instead of going round to the end of the levels.***

***Keene finding the door opened closed it, and then went along the bottom level with a naked light and met the gas which had evidently accumulated in the upper level while the door bad been left open, and which was then being carried, along by the ventilating current.***

***The gas exploded and Keene was badly burnt.***

***The quantity of gas that had accumulated does not appear to have been very great, judging from the force of the explosion, as another man named Redmond, who was close to him at the time, and who had the presence of mind to lie down, was only slightly burnt on one arm.***

***A Clanny lamp was always hanging on the top side of the door for the use of the men.***

***Keene, however, told the manager after the accident that, thinking the door had been left open for a few minutes only, he did not think it necessary to use the safety -lamp.***

***THE ACCIDENT OF THE 21ST MARCH, 1900. –***

***No accident from the ignition of inflammable gas occurred between the date of that to Keene and the deplorable explosion on Wednesday, the 21st . March, 1900, by which five miners lost their***

***lives.***

***The names of the victims were :- Alexander Houston, John Houston, James Johnston, Frederick Stephen Griggs, and Amos Gambie.***

***The following appear to be the facts with reference to this accident so far as they can be deduced from the evidence taken before the Commission :***

***Up to the Saturday previous to the accident the Houstons and others had been working in a***

***level on the left -hand, or return, side of the dip.***

***On the Monday morning they were removed to the right -hand, or intake, side to take out the pillars where the accident occurred.***

***The manager distinctly states that this removal was ordered because the road was beginning to crush, and not because of foul air or insufficient ventilation.***

***There is, however, a discrepancy in the evidence on this point, as the overman states that the reason for removing the men from that point was that the air was getting pretty well charged with gas coming from the fault at the bottom of the dip, owing to a stopping having been crushed.***

***The working places were examined at about 6 o'clock in the morning by John Caldwell, the overman and fireman, with a safety -lamp before the men entered, and were reported by him as safe. The cavity in the roof formed by the 'fall in the 100 -yards level was also examined and found to be free of gas.***

***The Commission have it in the evidence of John Caldwell that he examined the workings a second time that day, about a quarter of an hour before the accident occurred, and he states, when speaking of this examination, that he went down to the particular place where Houston was working and examined it, and that he then left his light with Houston and went with a safety -lamp through the old workings and examined them, and that he found" the mine all clear, just as it was in the morning.***

***At the time of the explosion the overman was in charge of the mine, in the absence of the manager, who was away at the Riverbank Colliery.***

***From the evidence of the overman, who was not many yards from the place, it appears that the explosion occurred at about 1 p.m., and that the, first thing he heard was a rumbling noise followed almost immediately by a rush of air, and by the flame.***

***The flame hovered over him and the boy for a second or two, and then went out. On feeling the rush of air, he said to the boy, " The gas is lit ; lie down."***

***He also heard the men crying out, and one of them saying, " Put it out," and then, " Jack is burnt," meaning the.younger Houston.***

***Caldwell and the boy got up to the top of the dip in the dark, 'where they met D'Arcy, the engineman, and two or three others***

***.***

***Gambie, one of the injured men, had already found his way up the dip.***

***After the engineman had got some safety lamps which were kept in the engine - room, he, with three others, went to the rescue of the other four men,***

***Caldwell waiting at the door of the dip to show them the light.***

***John Houston was the first to be rescued, and he was soon followed by Johnston, and then Alexander Houston. Griggs was the last 'to get to the top of the dip, being brought up by***

***the manager and the overman about half -an -hour after the explosion occurred.***

***Considering the position of the men, the time occupied in rescuing them seems rather excessive. This; doubtless, was partly clue to the over - excitement of the rescuers at the time of the occurrence, and partly to the heat and the choke clamp and dust in the dip.***

***The injured men, after being attended by Dr. Robertson, of Maryborough, and Dr. Smyth, of Howard, were taken by special train to the Maryborough Hospital.***

***The evidence of the men working in the upper level does not throw much light on what occurred at the time of the explosion.***

***A grating or rumbling sound was heard by some of them immediately before the explosion, while others state they heard no noise, at all. Immediately after the explosion there was a rush of heated air and dust in the level.***

***A boy named T. Irons, working with his father near the door in this level, about 10 yards from the main dip, was slightly burnt on his back, the injury keeping him from his work for two days***

*To Our Trusty and Well -beloved WILLIAM FRYAR, Esquire, Inspector of Mines;*

*THOMAS GLASSEY, Esquire, a Member of the Legislative Assembly of Our Colony of Queensland ; WILLIAM HENRY RANDS, Esquire, Government Geologist of Our said Colony ;*

*WILLIAM RANKIN, Esquire; and*

*Lewis THOMAS, Esquire.*

***PAGE 24***

***Violence and Extent of Explosion. –***

***In judging as to the quantity of gas that caused the explosion, the Commission have been guided to a great extent by the evidence as to the violence of the explosion, and the area over which it extended.***

***The evidence goes to show that the explosion was not a particularly violent one.***

***Two or three empty wagons standing in the dip just where the explosion occurred were not shifted, the trap -doors in the dip and to the left of the dip were uninjured, so also were the props.***

***Some canvas which had been put up instead of a door lower down the dip was ripped off, and that was the only apparent injury done.***

***The overman -and the boy Anderson, who were not many yards from the locality of the explosion; felt no shock or violence. ' It is evident, however, that the violence of the explosion, as would naturally be the case, was greater in ascending the dip, as the door in the upper level was thrown violently open, and the witness, W. Warren, was knocked over when lying on his side at the end of that level.***

***At the engine in the level at the top of the dip D'Arcy's (the engineman's) light was put out, and he was turned round and lifted over the drum, which was about 3 feet 6 inches in height above where he was standing, and received a small cut on the back of bis head. A boy turning some wagons in the same level was also knocked down.***

***With reference to the extent of the explosion, the Commission are of opinion that it was confined to a very limited area. The overman and the boy Anderson, who were only from S to 10 yards away on the opposite side of the dip, and in the return air -way, were uninjured. The men in the upper level from 20 to 40 yards distant were also uninjured, with the exception of the boy Irons, who was very slightly burnt. It seems probable, therefore, that the amount of gas exploded was not large.***

***PAGE 31***

***5. From the floor in the working -place where the victims were working. –***

***Another possible source of the gas is the bottom coal, which is here 2 feet below the floor. This coal is covered by an impervious bed of fire -clay, in the middle of which is a hard ironstone band that requires blasting.***

***The manager -Mr. Sharp - states that " there is .very little gas in the top coal, 'it generally came from the bottom coal. Down the dip the bottom coal is not so good, so that there is a great possibility that the gas may have come from the floor, owing to the bottom being burst up by the weight of the roof" on the pillars.***

***In his Weekly Report Book, however, reference is many times made to gas having been discovered, but only on two occasions does he mention where the gas came from.***

***Mr. Sharp has formed no definite opinion as to the place from which the gas came in this instance. He says, " It is a mystery to me ; I cannot understand it ; I really cannot explain it at all."***

***The overman throws very little light on the subject; he states that he has seen gas issuing from the floor, but never in sufficient quantity to cause such an explosion.***

***When the Commission visited the spot, the floor was slightly upheaved and cracked; and this was first noticed by the manager and the overman in going round the workings with the four experienced miners on 4th April, so that here again, as 'in the case of the second fall, there is no direct evidence to show when it occurred, except that it must have taken place between the morning or the 21st March and the 4th April.***

***If 'the gas came from the floor this would account for the limited space over which the explosion extended, for the gas would in that case be suddenly liberated right in their midst, and, on account of its lightness, ascend to the top or face of the working place, where, the evidence goes to show,***

***it was explored by John Houston.***

***. XXXII.***

***Reviewing the whole circumstances of the case the Commission have arrived at the conclusion that there is no evidence to prove conclusively to them from what place the gas emanated.***

***The Commission, after a very full and careful consideration of the evidence, are of opinion that blame cannot be attached to, anyone for the occurrence of the accident on the 21st March.***

***Since the closing of the Torbanlea Colliery after the accident, there have been only two mines at work on the Burrum Coal Field -viz., the Riverbank Colliery, previously known as the " Burrum," and the Queensland Collieries Company's Mine, Howard.***

***WATERSTOWN COLLIERY.***

***This colliery is situated in the North Ipswich Area. The' property has been worked for very many years, and operations have extended to at least four seams.***

***The mine bears the very unenviable notoriety of being nearly the only mine in the Ipswich District in which gas has been discovered, and the only one in which accidents have occurred from this source.***

***The Garden Tunnel, or the Garden Seam, appears to have been the first mine worked in this property. A miner named S. Clarkson informed the Commission that he started to work on that seam about eighteen or twenty years ago, that he frequently saw gas during the three years he was engaged at the mine, and that it was blowing off all the time, but not in sufficient quantity to cause an accident.***

***Clarkson himself got slightly burnt under the following circumstances : -One shift of men had just left off, and he, after having a smoke with them, was the first man to enter the place about twenty minutes after they had left it, when the gas went off.***

***His injury luckily was not sufficiently severe to render him unable to continue working. He was in the habit, it appears, of purposely lighting the gas himself in order, as he said, to clear Out the gas more quickly.***

***An accident had occurred, some time previously to this, to a miner named Richard Bassitt, who was severely burnt, but no reliable particulars of this occurrence were forthcoming, Bassitt, who was summoned to attend as a witness, having failed to appear before the Commission.***

***When the shaft now in use was being sunk, a seam was passed through, but not developed, at a depth of about 260 feet. At 320 feet the Waters - town Seam -the one now being worked -was cut, and work was commenced on it. After some little progress had been made, a stone drift was driven to the upper seam, which was worked for some considerable time.***

***Gas was given off regularly from this seam from the very start, though in no great quantity, as it was stated that it could not be detected when the ventilation was good. No accident from explosive gas occurred while working this seam.***

***The workings were examined in the morning before the men were allowed to enter.***

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***ACCIDENT TO JOHN FERRIER. –***

***In 1897 a " staple " or " blind " shaft was sunk to the Lower or Tivoli Seam, which lies 250 feet below the Waterstown Seam.***

***Gas was met with at once when this seam was struck, and safety lamps were ordered to be used by the fireman in his daily examination of the mine ; but notwithstanding this, no care seems to have been taken to carry the current of air by means of bratticing up to the face, with the result that the fireman, John Ferrier, within six weeks of the time that operations on the coal had commenced, met with an accident which cost him his life.***

***The particulars of the accident are as follows : -***

***A room was up about 20 yards or so to the rise above the level, and they had to hole through a further 10 feet to meet the upper level. Ferrier tried to get into the room with a safety lamp in the morning, but failed to do so on account of gas, which he took to be black -damp.***

***He then, in obedience to instructions from the manager, joined a miner in the upper level, who was holing through into the room from above.***

***He did not stop there long, but returned to the room with a bag to brush out the gas, still under the impression that it was blackdamp, and in doing so he wafted it clown on his naked light, which he had placed on the floor.***

***An explosion occurred, which burnt him severely, and he died in the hospital two days afterwards.***

***Undoubtedly the accident was largely due to his carelessness ; but had proper ventilation been carried up to the face of the room the accident would not have occurred, for when once they had holed through, and the ventilation could get round the workings, no more gas was seen, though the seam was worked for about twelve months after the accident.***

***The Commission visited the mine on the 15th May, and inspected the workings on the Waterstown Seam, which is the only one at present being worked.***

***This seam is about 3 feet 4 inches thick, with small bands of stone, and it is being worked on the pillar and room system.***

***The Commission found the arrangements underground almost as bad as they could be.***

***The working places were hot and badly ventilated, indeed the system of ventilation was wretched.***

***The air was vitiated and heated by being carried a long distance round the old workings to the right -hand of the dip before it came to the working places where the men were engaged;' and as***

***the management had trusted solely to porous " gobs" in the levels, and a few bags hung up in the dip, to divert the current of air along its proper course, most of it was dissipated before it reached the men.***

***The furnace created an ample current of air to have ventilated the mine well, had proper arrangements been made to conduct it round the workings ; and the Commission are of opinion that had this been done it is more than probable that no gas would ever have been detected in the mine.***

***The travelling ways and levels are low, and most uncomfortable to travel along.***

***In fact the mine has been badly managed in every respect.***

***In taking evidence on the 17th May the Commission were informed that, with the exception of one slight instance in the main dip, no explosive gas had ever been seen since the operations on this seam had commenced ; and yet on 28th of May an explosion occurred which resulted in the death of a miner named Thomas Bootle, and on the following day, the 29th, two of the Commissioners, Mr. Rankin and Mr. Glassey, went below, and found plenty of gas in the level above where the explosion occurred.***

***The Commission again visited the mine the day following the explosion.***

***Mr. Fryar, in his capacity of Inspector of Mines, went down in the morning, and Mr. Rankin and Mr. Glassey in the afternoon, with the result referred to above.***

***The accident occurred near the face of the fourth room from the end of the bottom level, and about 80 yards up the room above that level.***

***The underground manager, Mr. R. Johnson, stated that he examined this portion of the mine in the morning, and that he found the roof " working" heavily, and the floor " heaving "; and it is exactly under such circumstances that gas might be expected.***

***He stated, too, that, in consequence of this, he ordered the men working in this level to another part of the mine -namely, to the bottom of the dip ; and this is confirmed by the evidence of a miner named Roberts, who was Bootle's mate, and who went to work in the dip accordingly.***

***It appears that Bootle and the underground manager went together along the level as far as the room, and sat listening to the creep going on. Bootle had left his tools in the room, and after a time, still against the wishes of the underground manager who was about to obtain a safety -lamp, he started up the room to get them, and the underground manager followed, and was only 5 yards away from him when the gas fired.***

***Admitting that Bootle disobeyed the orders of the underground manager, the discipline must have been very lax which would permit him to do so when actually in the presence of that officer.***

***The level had been driven to a fault, and the rooms were being driven up to it. It is a well known fact that there is likely to be an exudation of gas in the neighbourhood of faults.***

***The Inspector of Mines, on his previous visit to the mine on the .10th April, evidently foresaw the danger of fire -damp being met with in this part of the mine, for in his report at the mine, bearing that date, he pointed out - the probability of gas occurring near the fault.***

***He advised the use of an uninjured and locked safety lamp in the examination of those workings in the mornings, and he also advised the manager to be specially careful on Monday mornings, after***

***the mine had been left standing since the previous Saturday.***

***These recommendations of the Inspector were totally disregarded by the management.***

***The Commission are of opinion that had these recommendations been carried out, or had even a decent current of air been carried round the working places, this deplorable accident would not have occurred.***