

Welsh Gold
Health and Safety Portfolio
Liam Newitt
1907785

Outline

Working Title – Welsh Gold

Genre – Documentary

Duration – 10 Minutes

Target Audience – Nature/Outdoor enthusiasts aged 16-50 and tourists looking for activities and days out in Wales

Outline – A short documentary presented by Iolo Williams about Dolaucothi mines. The documentary will explore the history of the gold mining that took place at Dolaucothi from Roman times through to the late 1930's. It will begin by introducing the area in and around Dolaucothi and show how the Romans used the area to create a mining outpost that people could live and work at. Then we go into the Roman mines and look at the various tunnels and artefacts that have been found to get a better understanding of what happened here and how the Romans managed to successfully mine here. The Roman section of this documentary will have various recreations of events we think took place in the mine. We then look at how the mining here in the early 20th century uncovered the lost Roman mines and the accidental discovery that led to a lot of archaeological projects in the area.

Scene Breakdown – This scene will have Iolo entering and walking up the Roman tunnels while explaining the details of the Roman tunnels and how they were used. It will then cut to a recreation of the mining using actors and props in the tunnels. The scene will consist of three actors and it will be used to emphasise the conditions in which they were forced to work in. This scene is following the introduction of Dolaucothi and will lead into the explanation of the Roman outpost around Dolaucothi.

Requirements and Resources – Three members of crew to operate the camera, boom microphone, and a director. Actors and props are needed for the short historical recreation in the mine. Main locations used will be in and around Dolaucothi so minimal crew and equipment is optimal as there is a lot of walking involved.

Constraints and Contingency – The main constraints involved will be getting permission from the farmers to visit the fields by the river to shoot some of the scenes. If permission can't be granted, then we will use a section of the river further down where we have permission.

Risk Assessment Form – Part A

Production Name:	Welsh Gold	Organisation	UWTSD
Production Address:	University of Wales Trinity Saint David, College Road, Carmarthen, SA31 3EP	Producer / Editor Tel: Mobile:	Liam Newitt 07847219624
Start date	1/10/19	End date	31/10/19
Distribution <i>Who gets a copy of the assessment</i>	All cast and crew		
Outline of risk assessment <i>Summary of what is proposed in terms of sequences and set ups.</i>	Risk assessment for a scene of Iolo walking down the Roman tunnels of Dolaucothi explaining how they were used, followed by a short historical recreation of the mining that happened in these tunnels.		
Team members / experts / contractors / contributors etc. <i>List those involved</i>	Narrator, Director, Camera Operator, Boom Microphone Operator, 2-3 Actors for recreation.		
Locations <i>Outline locations involved – indicate any which are hostile environments</i>	Dolaucothi mines, Pumsaint village, River Cothi (Pumsaint Area)		
Assessor	Name Signature	Liam Newitt Liam Newitt	Date completed 30/9/19
Authoriser (if not Assessor)	Name Signature		Date authorised

Hazard list – select your hazards from the list below and use these to complete Part B					
Situational hazards	Tick	Physical / chemical hazards	Tick	Health hazards	Tick
Assault by person		Contact with cold liquid / vapour	X	Disease causative agent	
Attack by animal		Contact with cold surface		Infection	
Breathing compressed gas		Contact with hot liquid / vapour		Allergic reaction	
Cold environment	X	Contact with hot surface		Lack of food / water	
Crush by load		Electric shock		Lack of oxygen	
Drowning		Explosive blast		Physical fatigue	
Entanglement in moving machinery		Explosive release of stored pressure		Repetitive action	
High atmospheric pressure		Fire		Static body posture	
Hot environment		Hazardous substance		Stress / anxiety	
Manual handling		Ionizing radiation		Venom poisoning	
Object falling, moving or flying		Laser light			
Obstruction / exposed feature	X	Lightning strike		Environmental hazards	
Sharp object / material	X	Noise		Litter	
Shot by firearm		Non-ionizing radiation		Nuisance noise / vibration	
Slippery surface	X	Stroboscopic light		Physical damage	
Trap in moving machinery		Vibration		Waste substance released into air	
Trip hazard	X			Waste substance released into soil / water	
Vehicle impact / collision		Managerial / organisational hazards			
Falls from height		Management factors (lack of communication, co-operation, co-ordination and competence)			

Risk matrix – use this to determine risk for each hazard i.e. 'how bad and how likely'		Likelihood of Harm				
Severity of Harm		Remote <i>e.g. <1 in 1000 chance</i>	Very unlikely <i>e.g. 1 in 200 chance</i>	Unlikely <i>e.g. 1 in 50 chance</i>	Possible <i>e.g. 1 in 10 chance</i>	Likely <i>e.g. >1 in 3 chance</i>
Negligible <i>e.g. small bruise</i>		Trivial	Trivial	Trivial	Low	Low
Slight <i>e.g. small cut, deep bruise</i>		Trivial	Trivial	Low	Low	Medium
Moderate <i>e.g. deep cut, torn muscle</i>		Trivial	Low	Medium	Medium	High
Severe <i>e.g. fracture, loss of consciousness</i>		Low	Medium	High	High	Extremely high
Very Severe <i>e.g. death, permanent disability</i>		Low	Medium	High	Extremely high	Extremely high

Risk Assessment Form – Part B

Activity¹ – Each individual activity you are proposing: Walking through the Roman tunnels and recreating a historical scene in the Roman tunnels			Location – where this activity will take place: Dolaucothi mines, specifically the Roman tunnel located at the top of the hill	Dates / times: 1/10/19 – 9:00am
Hazards² List what could cause harm from this activity <i>e.g. falls from height, trip hazard, fire, etc.</i>	Who exposed List who might be harmed from this activity <i>e.g. staff, contractors, contributors, public, etc.</i>	Risk³ For each hazard, decide level of risk as if you were to do the activity without your controls	Control measures For each hazard, list the measures you will be taking to minimise the risk identified <i>e.g. appointing competent persons, training received, planning and rehearsals, use of personal protective equipment, provision of first aid, etc.</i>	Risk³ For each hazard, decide level of risk once all your controls are in place
Cold and wet tunnels: Tunnels are cold and damp with streams of water running on the floor and drips from the ceiling. This poses the risk of water damage to equipment and our cast and crew getting wet and cold.	- Cast - Crew - Public - National Trust staff	Low	Water resistant gear: - Waterproof footwear - Waterproof clothing - Umbrella (always someone holding the umbrella over the camera) - Camera cover Insulating dry material: - Towels - Spare clothes There is a café nearby that can provide shelter and warm drinks to anyone we suspect is suffering from hypothermia.	Trivial
Dark environment and low ceiling: Without external lighting, the majority of the Roman tunnels are completely pitch black. Along with this, the ceiling is very low and poses a risk of serious head injury, especially in a dark environment.	- Cast - Crew - Public - National Trust staff	High	Personal protective equipment must be worn at all times where possible when working within the Roman tunnels. PPE such as helmets and headtorches are available at the main building of Dolaucothi. For certain scenes such as the recreation, PPE can't be worn. To ensure cast and crew are as safe as possible, there will be trained first aiders at hand to attend to any injury. Furthermore, to successfully film and work within the Roman tunnels we will need battery powered lights, as there is no power sources in the tunnels.	Low
Trip hazards and uneven/slippery surfaces: The Roman tunnels are very slippery as there is water running down the slope of the tunnel. Along with this, the ground is very uneven along a lot of the way with some sharp rocks sticking out of the walls/ground	- Cast - Crew - Public - National Trust staff	Medium	Gripppy and waterproof footwear must be worn to go into the tunnels. Furthermore, the PPE provided must be worn at all times by all the crew members and we have a trained first aider on hand with a first aid kit.	Trivial

Recce Sheet

Date: 25/9/19

Production title: Welsh Gold

Location: Dolaucothi Gold Mines, Pumsaint, Llanwrda

Present: Director, Camera Operator, Boom Microphone Operator

Local Condition:		
Any known problems?	Yes	Dolaucothi Gold Mines are a National Trust owned attraction, and the tunnels and surrounding area are quite spread out with uneven and rough terrain.
Aid needed?	No	
Permission needed?	Yes	We need permission from the National Trust to film on the property and take up a morning in the Roman tunnels.
Protective clothing needed?	Yes	Helmets and headlights have to be used in the tunnels as there is a low ceiling and there is almost no light.
Viewpoints:		
Any obstructions?	No	
Easy to reach and safe?	No	Conditions leading up to the Roman tunnels can be uneven and slippery, and the tunnels themselves are very damp.
Requirements:		
Power available?	No	There is no power available in the tunnels and in most of the surrounding area, and the tunnels are almost completely dark. So external battery powered lights will be needed. 
Lighting appropriate?	No	
Sound equipment needed?	Yes	Boom microphone will be needed as the tunnels are enclosed and a lot of noise echoes down the tunnels.
Anticipated problems:		
People?	No	
Other?	No	
Other considerations:		
Welfare considered?	Yes	
Set dressing required?	No	
Comments:		

Call Sheet Producer: Liam Newitt Director: Liam Newitt Production Manager: Liam Newitt Camera Operator: Luke Miller Boom Operator: Helen Richards	Welsh Gold	DATE: 1/10/19 Shoot Day: 1 out of 4 Director/Producer contact: 07847 219624
WEATHER: Sunny all day with the chance of cloud cover towards the end of the afternoon  First Aid kit available on the director. Fire extinguisher available at reception.	CALL TIME 09:00 Check grid for individual call times	LUNCH 13:00

Catering

Cast/Crew Lunch x 7 to be Hot & Ready @ Dolaucothi Café, to be served @ 13:00

Production Office		Health & Safety			
UWTSD Carmarthen Campus, Carmarthen, SA31 3EP		Closest A&E Hospital: Glangwili Hospital Closest AED Device: Coronation Hall, Pumsaint			
LOCATIONS					
#	Location	Address	Parking	Contact	
1	Dolaucothi Gold Mines	Pumsaint, Llanwrda, SA19 8US	Parking available in car park	01558 650177	
Scene and Description			Cast	Pgs	Loc
Descriptive scene of Roman tunnels at Dolaucothi by Iolo Williams. Iolo walks down the tunnel with a camera tracking shot as he gives an introduction and description of the Roman tunnels.			1		Roman tunnels
Historical recreation showing what took place in the mines. Recreation will consist of three miners working in the mines			3		Roman tunnels

#	Cast	Role	Call Time	Set Call
1.	Iolo Williams	Narrator/Guide	09:00	09:15
2.	Aaron Edwards	Actor in recreation scene	09:00	10:00
3.	Ethan Edwards	Actor in recreation scene	09:00	10:00
4.	Debbie Edwards	Actor in recreation scene	09:00	10:00

SET REQUIREMENTS

Props: Old mining equipment (provided by Dolaucothi)

Wardrobe: Old style clothing (specifically made shirts and rags provided by director)

Emergency Plan

In the event of a fire:

- Calmly follow fire exits signs to the nearest fire exit
- Group up in the car park
- Call emergency services

In the event of a medical emergency:

- A trained first aider with a first aid kit will always be on hand
- Better first aid kit is available at the reception of Dolaucothi
- Nearest AED is at Coronation Hall, Pumsaint approximately 0.5 miles away from Dolaucothi
- Nearest A&E Hospital is Glangwili Hospital, Carmarthen approximately 26 away
- There is a landline at reception to call emergency services if needed

Safety Vetting Form

As part of the commissioning process broadcasters review the health and safety arrangements of independent production companies. This questionnaire forms the basis of this review, although it is possible that you will be asked subsequent questions, particularly if you are being commissioned to produce higher risk content or if the Commissioner wants to gather further information. Once approved, your safety vetting approval is valid for a period of 3 years. Information provided on this questionnaire may be shared with other broadcasters who participate in the shared vetting process (which includes BBC, Channel 4, ITV, Sky, S4C).

Guidance on completing the form is given in notes which accompany the questions sets (blue shaded boxes). All answers should be given in the grey text boxes. You can send us the completed form as a pdf file.

Company Details

Company name (in full)	UWTSD Production	
Name of parent company (if applicable)		
Company address	UWTSD Carmarthen Campus, Carmarthen, SA31 3EP	
Number of employees	3	
Please indicate (Y/N) the nature of the production commissions which you wish to be considered for within the next three years: <i>Please answer all questions</i>	Radio () TV (X)	
	Low-Medium risk i.e. non-hostile locations, ready access to emergency services, non-inflammatory subject matter	X
	High risk: i.e. hostile and/or remote locations, undercover stories, highly sensitive subject material, etc.	
Low-Medium risk Radio productions – answer all questions excepting: 4, 5, 7, 10		
Low-Medium risk TV productions – answer all questions excepting: 7, 10		
High risk productions – answer all questions		
Have you been safety vetted by another broadcaster within the previous 3 yrs? <i>(if 'yes', please state who/when)</i>	No	
Name of person completing this form	Liam Newitt	
Job title	Director/Producer	
Date completed	26/9/19	
Declaration: By submitting this form you declare that, to the best of your knowledge, the information is true and accurate; and that you will inform the commissioning company of all changes that significantly alter the information provided.		

Health and Safety Management

1. Do you have a Company H&S Policy? <i>(If "yes", please attach)</i>	No
It is a legal requirement for companies employing 5 or more people to have a written health and safety policy in place. You can write it for yourselves , obtain it from your source of H&S Assistance (see below) or customise an established one (e.g. from PACT or your parent company). The policy should specify who is responsible for health and safety at managerial and day-to-day levels, what arrangements are in place to manage safety and the emergency procedures you have.	

2. Who is ultimately responsible for health and safety in your company?	Name and job title: Liam Newitt, Producer/Director
<i>A single individual should take overall responsibility for making sure the company's health and safety obligations are met and any issues are addressed. The responsible person should be an employee with influence within the organisation and is generally a Managing Director, Chief Executive, or other Director / board member. It should not be a person who makes day-to-day decisions about safety.</i>	

Health and Safety Assistance

3. Where do you go for H&S advice and support?	Company: Silverback Productions Contact name: Silverback films Contact details: 01179 927210
4. Please confirm that they meet IOSH accredited competence criteria : (If not, please specify what safety competency they do hold)	They meet IOSH accredited competence criteria.
<i>Your company needs to have someone to go to for Health and Safety Assistance. This person might be a sole trader, an employee of a consulting company, or could be one of your own employees. To be considered sufficiently competent to act in this role, they need hold a relevant and accredited health and safety qualification, sufficient to enable them to be on the Occupational Safety and Health Consultants Register (OSHCR) and/or achieve Grad IOSH membership status (or better).</i>	
5. Please confirm that your source of H&S Assistance is appropriately insured?	Silverback Films are appropriately insured.
<i>Those who provide professional safety advice need hold Public Liability insurance (PLI) and Professional Indemnity insurance cover. As a guide, £1m Professional Indemnity or £3m PLI would be an acceptable level of insurance for a production with standard risks.</i>	

Health and Safety Competence

6. What core safety training does your company set for those in positions of responsibility on productions? (Please describe any mandatory courses, who needs to complete them and how often)	Every employee is trained for first aid in the outdoors and we ensure that these courses are refreshed every three years.
7. What safety training does your company set for those working in 'high risk' situations? (Please describe any mandatory courses, who needs to complete them and how often)	
<i>All production staff should receive H&S training appropriate to their role. ScreenSkills offer bursaries for a number of H&S training courses. Those on productions who are in a position of responsibility for the safety of others and who have completed a Production Safety Passport (PSP) accredited course (such as 'Safe Management of Production') within the previous 5 years, will be considered suitably competent by the main broadcasters and PACT members. Alternative training courses will also be considered, including IOSH's Working Safely and Managing Safely.</i>	

Risk Assessment

9. Please confirm you have attached a copy of a recently completed (i.e. < 6 months old) production risk assessment form of yours?	For risk assessment please see above.
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10. Please describe the sign-off procedure for risk assessments involving 'high risk' activities?	
<i>Risk assessment is the cornerstone of health and safety management and it should form the basis of your company's health and safety procedures as well as providing a structured way of looking at workplace hazards on production. Risk assessments should be completed by somebody who is knowledgeable in the process and understands the hazards associated with the task in hand.</i>	

Accidents / incidents and Enforcement Action

11. Outline your procedures for reporting and investigating serious accidents on productions?	The safety review form has a section where the Producer can record any accident in detail.
12. Outline any RIDDOR 'reportable' you have had in the previous 12 months, and the learning points you drew from these?	None
13. Outline any enforcement action that has been taken against your company by the HSE or a Local Authority within the previous 3 yrs?	None
<i>Accident reporting can be done via an internal paper or online form, or by using the HSE BL510 accident book. Your procedure should include responsibility for reporting under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR)</i>	

Fitness Review

Outline of Activity: Short documentary called 'Welsh Gold' taking place at Dolaucothi Gold Mines in Pumsaint. The area around Dolaucothi is quite spread out and will involve a bit of walking up some hills and some rough, uneven and slippery terrain. Along with this, the tunnels themselves are quite confined and could pose a challenge to someone who is claustrophobic. Overall, the production doesn't require much physical activity, but we need to ensure that participants are capable and will be safe.

Participant Name	Fitness Review	Signature and Date
Iolo Williams	Age: 57 Contribution: Presenter Review: Iolo is a television presenter for nature and outdoor programmes and has been around the world to work and film in various different countries. He is fit and able to participate in this production.	Iolo Williams - 29/9/19
Ethan Edwards	Age: 45 Contribution: Actor Review: Ethan has a lot of experience working in the outdoors and in extreme conditions and is fit and able to participate.	Ethan Edwards – 29/9/19
Aaron Edwards	Age: 44 Contribution: Actor Review: Aaron has worked with Ethan on many outdoor projects and is comfortable to partake in anything up to a medium difficulty.	Aaron Edwards – 29/9/19
Debbie Edwards	Age: 20 Contribution: Actor Review: Debbie hasn't worked in the outdoors on many productions but wants to get experience working in different environments. She is fit and able to participate.	Debbie Edwards – 29/9/19
Luke Miller	Age: 19 Contribution: Camera Operator Review: Luke has experience working on extreme outdoor and nature shoots and is fit and able to participate.	Luke Miller – 29/9/19

Manual Handling Assessment

The Tasks: Do they involve		
Holding loads away from the trunks?	No	
Twisting?	No	
Stooping?	No	
Reaching upwards?	Yes	The tunnels themselves can be very confined spaces therefore carrying things such as a boom microphone or a tripod can require a lot of vertical movement and reaching up and down upon entering and exiting the tunnels.
Large vertical movements?	Yes	
Long carrying distances?	Yes	The area around Dolaucothi is quite spread and requires a reasonable amount of walking.
Strenuous pushing or pulling?	No	
Unpredictable movement of loads?	No	
Repetitive movements?	No	
Insufficient rest and recovery periods?	No	
A work rate imposed by a process?	No	
The Loads: Are they		
Heavy?	No	
Bulky/unwieldy?	Yes	Boom microphone will be hard to operate in the tunnels and will require a lot of care because of the small amount of available space.
Difficult to grasp?	No	
Unstable or unpredictable?	No	
Intrinsically hazardous?	No	
Constraint on posture?	No	
The Individuals: Does the job require		
Unusual capabilities?	No	
Hazard those with health problems?	Yes	The amount of walking may cause problems to people with health conditions that impair the ability to walk, and it may be a problem for pregnant workers and nursing mothers.
Hazards pregnant workers or nursing mother?	Yes	
Require special training or information?	No	
Others:		
Does PPE interfere with any aspect of the task?	No	
Conclusion		
Is the risk adequately controlled?	Yes	
Comments:		
Assessor name:	Liam Newitt	
Date:	30/9/19	

Safety Review

Production Name: Welsh Gold

Date: 1/10/19

Hazards	Control Measures	Record of Accidents
Dark environment	PPE is available at the main building of Dolaucothi and an employee helps you put it on. PPE includes: • Helmet • Headtorch Director/Producer will ensure that everyone is wearing PPE at all times.	
Cold and wet environment	Waterproof clothing such as coats and warm clothing must be brought to the shoot to ensure that no one is at risk of getting hypothermia. Appropriate footwear must be worn to reduce the risk of getting blisters.	
Slippery surfaces	Appropriate footwear must be worn to reduce the risk of slipping on the wet surfaces inside and around the tunnels.	
Rough and uneven terrain	A fitness review has been carried out prior to ensure that all contributors are fit and able to traverse the terrain.	
Low ceiling	Helmets must be worn at all times when possible in the tunnels. Also there is a trained first aider at hand to deal with any injuries, and an emergency plan is in place if any medical emergency takes place.	
Comments:		

Report

In this report I am going to critically analyse the planning and production process of the short documentary that we've just finished filming called Welsh Gold. The purpose of this documentary is to draw more attention to the history of Dolaucothi Gold Mines, and hopefully increase popularity of the local tourist destinations. This documentary will also be very informative for anyone conducting research into the area and of the history of gold mining in Wales.

The process of scouting the location and the creative development of the production went smoothly. A team including the director, camera operator and boom microphone operator were sent to Dolaucothi to conduct research and the area and begin to build upon what key points the documentary was going to focus on. Furthermore, a thorough recce was conducted at this time to ensure the main crew members were aware of the conditions in store and what control measure may need to be in place. Following this research and recce trip, a clear idea of the risks ahead was established and the process of working on risk assessments and control measures began. Overall, I believe that this process went really well as we were able to scout the location for the main problems that we will have to overcome to shoot there. This is clear from the fact that the main issues we dealt with on the day were anticipated. Having said that, the day we scouted the location was sunny and it had been sunny for a few days prior, whereas it had been raining heavily a few days prior to shooting and the ground was a lot more muddy and slippery than expected. In future, I will need to thoroughly check the weather forecasted the week before and during filming to ensure there is no changes to the terrain, and this is specifically important when shooting by bodies of water.

The shoot itself went well and there were no serious problems that occurred which weren't anticipated by the risk assessment. The recce report and location scouting was crucial to the filming we did because we were able to ask the National Trust for permission to close off Dolaucothi Gold Mines for the majority of the day to ensure that there were no people that would interrupt the shoot and that we weren't affecting anyone else's experience of Dolaucothi. Building on this, a portion of the documentary was shot along the riverbank of the river Cothi. The location scouting that took place before the shoot ensured that we had chosen a portion of the river to film along and that we had asked for permission to use the farmer's land on the day. One of the main issues that was encountered throughout the filming was the lighting we needed to successfully shoot in the tunnels. During the pre-production phase, the decision was made to use minimal crew and kit as the conditions in the tunnels can be quite cramped therefore, we needed a small crew and minimal kit to function efficiently. This meant that the lighting we brought wasn't quite good enough to get a clear picture of lolo in the tunnels. We solved this problem on the day by using both the battery powered light we brought and the small lights in certain location of the tunnels. Luckily enough the lights in the tunnels were enough to get a good picture quality but in future I need to plan around getting the best picture quality and not around the efficiency of the shoot. A way to overcome this issue would have been to bring another person specifically to hold a light bar in the tunnels and ensure that everyone in frame is well lit. The control measures that were put in place for the cold and wet environment of the tunnels played a big part in how smoothly the production went. On the day of the shoot, even though the weather was sunny, it had been raining heavily the day before and the ground was muddy and wet and there was a substantial amount of water running out of the Roman tunnel in particular, where we were shooting the recreation. This meant that while shooting the recreation, the actors got a lot more cold and wet than we had anticipated. We took this into account, and cut the recreation shoot short to break for lunch and used the towels and warm, insulating clothes we had brought to warm the actors up and get them comfortable again. Making sure that there was a warm, dry place for the actors to sit after their scene was another key part of the location scouting, and it helps when it is location such as Dolaucothi where they have a café. To ensure that something like this doesn't happen again, I need to again ensure that I thoroughly check the weather forecast to ensure that there is no extreme

weather happening around a shoot when predictable conditions are needed. But I'm glad I had the control measures in place to account for something like this happening and I was able to deal with the situation and keep the actors comfortable and warm.

Overall, the production of this documentary ran smoothly and the things that went wrong were dealt with swiftly due to the control measures put in place. Building on that, I am pleased with the risk assessments and the control measure that were put in place, but I think going forward I would need to focus more on the identifying the problems before they happen to achieve the smoothest running shoot.

To conclude, the preproduction phase of this documentary went really well, the only problems I've encountered are to do with the lack of extensive research of natural factors of the location such as the wide weather forecast at Pumsaint. Having said that, I'm happy with the risk assessments and the control measures that were put in place as they helped a lot with how the production ran. The production phase of this documentary was dotted with little errors that were quickly dealt with by control measures, but overall, we managed to complete the documentary successfully with no major issues or incidents at all. The errors that happened while filming were things that could have been taken into account had we done a bit more research on the location and the weather at the time of the shoot. But luckily, the control measures that were put in place ensured that we could deal with the risks as they were anticipated beforehand.