



Method Statement & Risk Assessment

Repairs to Gabion Baskets Tay Viaduct

River Tay, Perth

TBC 2024

Client: AMCO GIFFEN Amco Giffen	Contractor: CALDIVE Caldive Ltd. <small>DIVING SERVICES WORLDWIDE</small>
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Approved, certified or verified by the following:



Revision Document No:	Date Written:	Project Job No:
Rev. 1	17/05/2024	TBC

Record of Amendments

Details of changes to the risk assessment, method statement or emergency plan are to be logged as part of the permanent record. Reasons for change should also be recorded.

Change:			Revision No:		
By:		Signed:		Date:	
Change:			Revision No:		
By:		Signed:		Date:	
Change:			Revision No:		
By:		Signed:		Date:	
Change:			Revision No:		
By:		Signed:		Date:	

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Authorisation for Use

This dive plan has been prepared in accordance with the Diving at Work Regulations 1997 and the Approved Code of Practice for Commercial Diving Projects Inland/Inshore L104 (Second edition) Published 2014.

The information contained in this document is confidential and proprietary. The contents must not be disclosed to any third party without the express and written approval of Caldive Ltd.

In accordance with the Diving at Work Regulations 1997 (SI 2776), Regulation 6(2)(b) (I) and Regulation 9, **John Mullen** is appointed by Caldive Ltd as a Diving Supervisor for this project as covered by the Approved Code of Practice for Commercial Diving Projects Inland/Inshore (L104).

If for any reason **John Mullen** has to leave site or dive himself, **Robert Tempest** will take over as Diving Supervisor.

Engin Daldalan will be allocated as Caldive's site safety representative and will assist the Supervisor in ensuring the safety on site.

This document has been prepared in accordance with Caldive Limited's quality procedures and has been authorised for issue by the following signatory.

[Redacted]

John Beaton
Managing Director



17/05/2024

Date of Issue

1.0 Project Management Overview

Project Title	Repair Gabion Baskets, Tay Viaduct, Perth
Project Location	River Tay Viaduct
Workscope Summary	Mobilise dive team, Pioner workboat to site River Tay Perth
Contract Conditions	Purchase order no.
Diving Contractor	Caldive Limited
On-site Date	TBC
Health and Safety	Conduct on site will be consistent with the Caldive Health, Safety and Environment manuals, copies of which will be available on site. Diving will take place in compliance with the UK Diving at Work Regulations 1997, the Inland/Inshore Diving Projects Approved Code of Practice, and Caldive Limited diving procedures.
Permit Details and Notifications	Permit Network Rail

2.0 Project Information Summary

Diving Contractor	Caldive Ltd, is contracted to Amco Giffen under purchase order.				
Diving Supervisor (s)	<p>John Mullen is appointed as diving supervisor for this project, in accordance with Regulation 6(2)(b) (I) and Regulation 9 of the Diving at Work Regulations 1997.</p> <p>All supervisors are familiar with the conduct of diving operations Aberdeen VTS. All nominated divers are qualified to a minimum of HSE Part III and have in-date HSE diving medical certificates.</p>				
Team size and specialist skills	<p>A 5–man team will be used for this project. All nominated divers are qualified to a minimum of HSE Part III and have in-date HSE diving medical certificates. Person specific tasks or responsibilities are to be itemised.</p> <p><i>* At least two personnel should be qualified in First Aid – The Supervisor will be responsible for arranging their responsibilities.</i></p>				
Dive Name	Supervisor No.	Dive Certificate No.	HSE Medical Expiry	Specialist Ticket(s)	Role
John Mullen	I/0419/13	PARTI/374/90	-	07/12/2024 FAW	Supervisor
Robert tempest	1/0301/09	07/1/0710(COM)	08/05/2025	17/06/2025 DMT	Asst Supervisor
Engin Daldalan		TU/559464/14	08/05/2025	01/03/2025 FAW	Diver/Safety
Robert Hodgeson		10661	27/11/2024	28/02/2027 FAW	Diver
Struan Levack		SS/561882/22	02/06/2024	18/11/2026 FAW	Diver
Dive equipment / system	All equipment will be designed and certified in accordance with the International Marine Contractors Association Code of Practice for the Inspection, Testing and Certification of Diving Plant and Equipment as specified in documents IMCA D018 & D040. Test and Inspection certificates will be on site.				
Additional equipment	Pliers, Snips and assortment of hand tools				
Subcontractor	N/A				
General site characteristics	Tidal River, potential for fast flowing water				
Access / Egress / Stricken diver recovery	Access will be from river bank on island and wier				
PPE required	Working Gloves, Diving Suits, Hard hats, Safety glasses, Gloves, Hi-Viz waistcoats				
Medical Emergency Care	<p>'MedDive' provides a diving emergency medical service worldwide. Specialist medical advice is available on a 24/7 basis. +44 20 8762 8347 (<i>See Appendix B</i>)</p> <p>In the event of connection problems, contact Topside support on +44 20 8762 8379</p>				

3.0 Dive Plan

Item	Details
Exposure	Cold fast flowing water
Tidal conditions (range)	1.7m
Tidal conditions (current)	In excess of 1kt
Depth	Maximum water depth will be 3m. Working depth 3m.
Underwater visibility	Anticipated visibility (with lights if required) is 0.5m
Dive equipment	<p>The diving equipment will consist of a portable SCUBA dive system 12 l cylinders and 7 l bailout cylinders. The divers will use AGA full face masks with voice communication.</p> <p>The length of the diver umbilicals will be 70m.</p> <p>The divers will carry 12l cylinders on integrated recovery and weight jackets.</p>
Recompression chamber	<p>Twin lock recompression chamber is available at National Hyperbaric Centre Aberdeen. The travel time from site to the recompression chamber is 1 hour 30 minutes.</p> <p>O2 will be available 2 x 20l for journey time.</p> <p>Divers will be provided with a Caldive contact number to be used in the event of any manifestation of hyperbaric illness after hours.</p> <p>All signs and symptoms that could be indicative of decompression illness will be referred to the Med-Dive duty doctor and recompression organised if so advised.</p>
Diver's gas supply	<p>12l cylinder at 20bar</p> <p>Bailout 7l cylinder at 220bar</p>
Dive times	Dives will be carried out using USN Revision 7 decompression tables and all dive times will be kept within no-decompression limits. Exposure limits will be restricted in accordance with Table 1 of ACOP L104
Pollution	None significant anticipated.
Weather cut-offs	<p>Weather cut-offs will be determined on site by the supervisor.</p> <p>Weather forecast and transport links will be monitored.</p>
Air temperature	15°C anticipated.
Water temperature	8°C anticipated.
Diver access to water	From river bank.
Surface communications	Mobile phones and VHF radio.
Signs, symbols and notices to be displayed	flag 'A'
Vehicle access	Available at roadside

Crew welfare facilities	Available locally
First aid personnel	Sufficient number of First Aiders available onsite adhering to ACOPs. Minimum 2 first aiders.
Medical equipment	First aid kit and oxygen administration set available on site. 2 x 20l O ² at 200bar <i>Note: When administering Oxygen on surface (Normobaric O₂) for Decompression illness, symptoms may initially appear to increase. Oxygen treatment should continue.</i>
Casualty evacuation	See emergency procedures below.

4.0 Health and Safety

All site activity will be subject to a detailed risk assessment which will allow a safe, efficient method to be documented in advance of any site activity taking place.

Site incidents will be managed using the Caldive Emergency Procedures Manual, a copy of which will be held in dive control.

The closest known recompression chamber to the site is listed below. Journey time by road to this facility is 180 minutes.

JFD National Hyperbaric Centre
Aberdeen
AB16 5FA

Telephone: +44 (0) 1224 698895

In the event of a decompression incident, the Caldive site manager will contact the **'MedDive' hyperbaric consultant** on call on:

+44 20 8762 8347

They will advise on the most appropriate course of action, this may include transfer of the casualty to a chamber other than that named above.

First aid, including therapeutic oxygen, is to be administered as appropriate. The supervisor is to record the onset and development of any condition and accompany the casualty to the point of qualified medical evaluation.

In the event of an accident or incident on site requiring external assistance, contact the emergency services by telephone (999 or 112); at sea the coastguard may be contacted on VHF Channel 16. Upon making contact, follow their instructions. Take steps necessary to make the site safe and prevent further incident where possible. First aid is to be administered on site. Minor injuries are to be treated with first aid on site, the casualty is then to be taken

to a place of treatment as required to allow evaluation of the injury and treatment by trained medical personnel if necessary.

All accidents, incidents and near misses are to be recorded and reported to management. Accident investigation will be carried out in accordance with company operating procedures. Minor incidents requiring first aid are to be recorded, reported and first aid kit used is to be replaced.

Emergency Services may be contacted by telephone on 999 or 112 or by using VHF on Ch16.

4.1 Hazard identification

Risks relevant to civil engineering diving operations will be reviewed prior to commencement of operations on site by:

Name:	Role:	Signed:	Date:
	Dive Supervisor		

With regard to site operations, risks are accounted for in the risk assessment shown in Appendix A, which includes all the items considered in the Caldive Limited risk assessment requirements. Following risk assessment, all residual risk ratings will be judged to be acceptable before diving operations commence.

4.2 General note

All injuries, accidents and dangerous incidents must be reported to John Beaton, and accident report forms completed as appropriate.

In the event of an accident, the diving supervisor will contact Iain Beaton, Caldive MD and (Client rep) at the earliest opportunity.

5.0 Key Contacts

Name / Position	Company	Contact Details
Managing Director Iain Beaton		Tel: 01349 853 688 Mob: [Redacted] E-mail: iain.beaton@caldive.co.uk
Ops Director/Dive Supervisor - John Mullen		Mob: [Redacted] E-mail: john.mullen@caldive.co.uk
Client Mark Cheyne Project Manager		Mob: [Redacted] E-mail: Jamie.tervet@amcogiffen.co.uk
Client		Mob: E-mail:
Perth Harbour		VHF Chanel 09 & 16
Coastguard	Aberdeen	01224 592334
Medical Assistance		
Hospital	Peth Royal Infirmary Taymount Terrace Perth PH1 1NX	01738 623311
MedDive , diving emergency medical service (See Appendix B)		+44 20 8762 8347
Any problems with connection, contact Topside support		+44 20 8762 8379

6.0 Method Statement

6.1 General Conduct

Diving operations will be carried out in accordance with standard operating procedures and Caldive Diving Rules.

All personnel will wear appropriate PPE.

Where there is likely to be interaction with the public, barriers must be put in place to prevent interference to diving equipment and to safeguard the public against injury from diving plant and equipment. Personnel will be briefed on appropriate behaviour and client confidentiality when dealing with the general public both on and off site.

6.2 Site Safety

6.2.1 PPE

All personnel will wear standard personal protective equipment when on site.

This will consist of high visibility jackets or waistcoats, minimum Class II, 150n Auto Inflation 'Crewsaver' type lifejackets, protective footwear with mid-sole protection, and hard hats.

Hearing protection must be worn in noisy environments.

Diving will be carried out using SCUBA AGA full face masks with voice communication. The divers will use neoprene dry suits. Gloves will be 5mm neoprene in good condition and free of holes with elasticised wristbands.

6.2.2 Task Briefing, Tool Box Talks (TBTs), Site Inductions

The Caldive project manager will ensure that the dive team is fully briefed and understands the precise nature of the project including equipment and methods to be used, site conditions and rules and client requirements.

All personnel will attend a site induction where applicable, usually carried out by the client, and task specific briefing and daily tool box talks to be carried out by Caldive Limited site supervisors.

6.3 Resources Supplied by Caldive Limited

- Five-man dive team
- Mobile dive control system
- Hand tools, pliers and snips etc
- Ropes and rigging

6.4 Schedule of Work

6.4.1 Site Documentation

Prior to the commencement of the site operations, the following will be in place;

- The Caldive method statement and risk assessment
- All divers' certification to be approved.
- The dive system certification to be issued and approved.
- Harbour authority dive permit (if required).

6.4.2 General Site Management

- The dive supervisor will maintain a day log recording the site activity for each shift. The supervisor will compile a dive plan which will be communicated to and agreed by the client.
- The stand by diver will be at immediate readiness at all times whilst the diver is in the water.
- All refuelling of machinery to be carried out while engines are off and cool. The vessel is equipped with a range of fire extinguishers which will be used to control any fire resulting from a spillage of fuel.
- Drip trays will be supplied for all engine driven units. In the event of a fuel spill, the team will immediately use the containment kit to control and neutralise the effect of the spill.
- The dive team will immediately contain and neutralise any spills of oil or fuel using appropriate containment equipment.
- All personnel will monitor the area for vessel movements and will ensure that non-essential personnel remain outside the area of the diving operation.

6.4.3 General Method

<i>Project Equipment List</i>		
<i>Equipment List</i>	<i>Quantity</i>	<i>Supplied</i>
Diving Equipment		
SCUBA – Diving Equipment & Comms	1	Caldive
Assortment of hand tools crow bars etc	1	Caldive
Snips and pliers	4	Caldive
Ropes and Rigging	1	Caldive
Inshore First Aid Kit	1	Caldive
Defibrillator	1	Caldive
Stretcher	1	Caldive
MARS Resuscitation Kit	1	Caldive
Spill Kit	1	Caldive

- Prior to mobilizing to site a suitable dry period of low water flow levels will be agreed
- The river can only be accessed during long dry periods of low flow
- Amco Giffen to provide detailed workscope of gabions to be repaired
- The dive team will mobilise diving equipment and tools to viaduct on River Tay Perth
- Equipment can be off loaded close to the repairs by either driving over the weir or dropping off on the east side of the river
- Team will complete access permits and Tool Box Talk before any works commence
- The access and recovery locations will be established
- The diving supervisor and clients representative will carry out an assessment of the repairs and agree as per the workscope
- The team will dress in dry suits with high viz vests, gloves, hard hats and safety glasses
- Caldive personnel will carry the tools and equipment from the river bank to the gabions
- Using materials provided the team will patch repair the gabion in filling any voids with local material
- The gabion will be stitched with the wire and made secure
- Progress reports DPR will be maintained throughout the job
- On completion of the repairs the supervisor will take a video and any stills required to be used in the as left report



Figure 1. Slipway at Tay Viaduct on West Side



Figure 2. Slipway at Tay Viaduct Overhead View

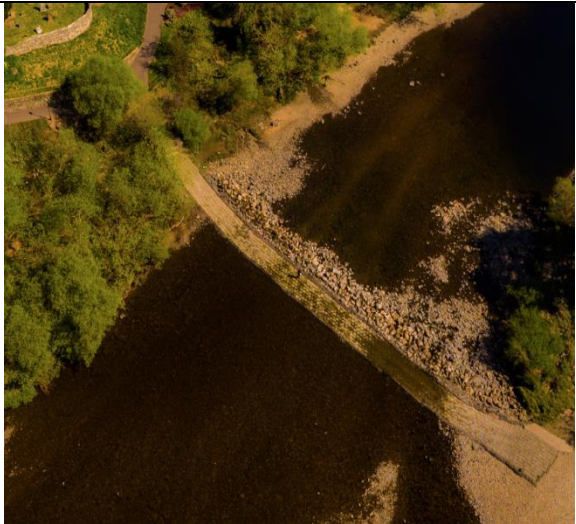


Figure 3. Weir on east side



Figure 4. Access across the weir during high flow

Appendix A – Risk Assessment



RISK ASSESSMENT / TASK SAFETY ANALYSIS RECORD

Customer: Amco Giffen
Activity: Repairs to Gabion Baskets
Procedures: Hazard Identification and Risk Assessment
Location: Tay Viaduct - Perth
Date(s): TBC

Basic HSE Requirements							
1. Basic PPE / Coverall	✓	8. Respirator		15. Electrical Isolation		22. Competent Personnel	✓
2. Basic PPE/ Hard Hats	✓	9. Life Vest	✓	16. Permit to Work	✓	23. Toolbox Talks / Briefings	✓
3. Basic PPE/ Safety Boots	✓	10. Safety Harness		17. Risk Assessment	✓	24. Certified Equipment	✓
4. Basic PPE/ Goggles	✓	11. Face Shield	✓	18. Life Buoy		25. <i>other</i>	
5. Basic PPE / Gloves	✓	12. Ventilation	✓	19. Guarding		26. <i>other</i>	
6. Basic PPE /Hearing Protection	✓	13. Fire Extinguisher	✓	20. Lockout/Tag out		27. <i>other</i>	
7. Basic PPE /Eye Protection	✓	14. Equipment Rigging/Lifting	✓	21. Communications	✓	28. <i>other</i>	

HSE Procedures:
<ol style="list-style-type: none"> 1. Health, Safety and Environment Policy 2. Air Diving Procedure Manual 3. Accidents and Incidents Procedure 4. Environment Protection Procedure 5. Hazard Identification and Risk Assessment 6. Diving Emergency Response Plan 7. Lifting & Rigging Strategy



		Severity of Harm			
		1	2	3	
		Slightly Harmful	Harmful	Extremely Harmful	
Probability of Occurrence	1	Highly Unlikely	Minimal Risk	Tolerable Risk	Moderate Risk
	2	Unlikely	Tolerable Risk	Moderate Risk	Substantial Risk
	3	Likely	Moderate Risk	Substantial Risk	Intolerable Risk

Risk Rating = Probability x Severity		
Probability	Severity	Rating
1	1	1
1	2	2
2	1	2
3	1	3
1	3	3
2	2	4
2	3	6
3	2	6
3	3	9

Risk Assessment Guide		
Risk Rating	Description	Hierarchy of Risk Control
0-2	Minimal/Tolerable Risk	The probability of occurrence and severity of harm is minimal. The task/operation will be able to commence. No additional controls required or at least with very little implication.
3-5	Moderate Risk	Risk needs to be reduced but only balanced with cost. Actions and control measures can be agreed to carry out the task in a safe manner. If moderate risk is linked to high severity, then further reviews may be necessary to implement correct control and procedures.
6	Substantial Risk	Agreed actions, costs, timescale and reviewed controls to be authorised by management.
9	Intolerable Risk	Task must not proceed until risk has been reduced to tolerable level. Agreed actions, costs, timescale and reviewed controls to be authorised by management.



LEVEL 1 ASSESSMENT										
Activity Description	Hazard Description	Potential Effects & Personnel Exposed	Severity Rating			Recommended Safe Job Procedures	Recommended Safety Requirements	Residual Severity		
			S	P	R			S	P	R
Table Legend: S = Severity P = Probability R = Risk										
Manual Handling	Load Weight, Size Shape, Location. Lifting, Moving, Carrying, Lowering.	Injury to Personnel/ Third Party Personnel. Physical Damage to Equipment e.g./ Equipment Dropped. Company reputation.	3	2	6	Manual Handling/ Trained Personnel/ Onshore Base Safety Handbook/ Site Toolbox Talk/ Weight Identification/ Warning Signs/PPE / Posted Safety Notices.	1-7	3	1	3
Repairs to Gabion Baskets	Slippery uneven surface Sharp objects Debris	Injury to personnel Cuts punctures and abrasions	2	3	6	Wear appropriate PPE Hand and foot placement Beware of surroundings Remove debris	16-17 21-24	2	1	2
Working on bridge pier	Fast flowing water. Slippery surface. Tide levels Branches and debris	Drowning. Injury to personnel Damage to equipment Lost time Unable to complete task	3	3	9	TBT/Good supervision and communications. Site risk assessment/Trained competent personnel/Good hand foot placement Personnel to wear dry-suits and PPE Only carry out task if conditions allow/monitor the weather and tide	16-17 21-24	3	1	3
Maintenance & Use of HP Systems	225 Bar high pressure	Serious injury to, Compressor Sets- servicing personnel. Physical Damage to Equipment. Company reputation.	3	3	9	Isolate all power supplies / Support/restrain equipment to prevent movement / Before dismantling ensure all residual pressure in all parts of equipment, on the panels of air supply, in hoses are released / Trained Personnel / Certified Equipment / Warning Signs	1,2,3, 20 - 24	3	1	3
Use of All Type of Air Diving Equipment (General)	Equipment used outside operating parameters / Mixing/ use of uncertified equipment	Physical Injury personnel/Third party Personnel. Damage/Down time of equipment. Company reputation.	3	3	9	Use trained, competent personnel / Operate within Caldive Operating procedures / Check all equipment for certification / Secure/dispose of all non-certified equipment	21 - 24	3	1	3



LEVEL 1 ASSESSMENT										
Activity Description	Hazard Description	Potential Effects & Personnel Exposed	Severity Rating			Recommended Safe Job Procedures	Recommended Safety Requirements	Residual Severity		
			S	P	R			S	P	R
Table Legend: S = Severity P = Probability R = Risk										
General Movement of Personnel Around Site	Slip/Trip/Fall	Injury to Personnel/Third Party Personnel. Equipment/Device Damaged/Dropped. Company reputation.	2	2	4	Site Toolbox Talk / Good Housekeeping / Anti-slip Surfaces / Warning Signs / To keep working place clean	17, 23	2	1	2
General Movement of Personnel Around Site	Quayside ropes	Injury to Personnel/Third Party Personnel. Equipment/Device Damage. Company reputation.	2	2	4	Keep diver/tender activity clear of vessel moorings/do not interfere with 3 rd party mooring ropes	17, 21 - 23	2	1	2
Dropped/Falling Items During Handling or Transport Movements	Dropped / Failure of Lifting Equipment	Injury to personnel / Third party personnel Equipment Damaged/Dropped. Company reputation.	2	2	4	HSE instructing at the working place before operations commencement / Inspection/certification of lifting equipment. Trained Personnel / Follow procedures.	1 – 7, 21 - 23	2	1	2
Personnel Environment	Weather conditions	Injury to personnel/ Third Party Personnel / Equipment/device damage. Company reputation.	2	2	4	Risk Assessment – Delay work, Use appropriate protective equipment	21 - 23	2	1	2
Adjacent Work	Hazards generated by other work parties	Injury to personnel/ Third Party Personnel Equipment/Device damage. Company reputation.	2	2	4	Use PTW System / Discuss interface with supervisory personnel / Where conflict cannot be avoided work to be prioritized by Management / HSE instructing at the working place before operations commencement /_Trained Personnel	20 - 24	2	1	2
Working Excessive Hours	Fatigued Personnel	Physical Injury to personnel. Damage to equipment. Company reputation.	2	2	4	Provide adequate manning levels / Take regular rest breaks / Working in excess of normal hours must be authorized by client and to be controlled by supervision.	16, 21 - 23	2	1	2



LEVEL 1 ASSESSMENT										
Activity Description	Hazard Description	Potential Effects & Personnel Exposed	Severity Rating			Recommended Safe Job Procedures	Recommended Safety Requirements	Residual Severity		
			S	P	R			S	P	R
Table Legend: S = Severity P = Probability R = Risk										
Working With Hand Tools	Injury to Personnel	Physical Injury to personnel/Third Party personnel Damage to equipment. Company reputation.	3	2	6	HSE instructing at the working place before operations commencement / Ensure all hand tools are operational / Personnel trained in tool use / Take relevant precautions.	1 – 7, 22 , 23	3	1	3
Working With Power Tools	Electrical, mechanical, physical exposure	Physical Injury to personnel/Third Party personnel Damage to equipment. Company reputation.	3	2	6	HSE instructing at the working place before operations commencement / Ensure all hand tools are operational feasibility / Personnel trained, qualified, certified in tool use / Take relevant precautions.	1 – 7, 22 - 24	3	1	3
Working in Hazardous Area	Fire/explosion risk	Serious Injury to personnel/third party personnel. Major equipment damage. Company reputation.	3	3	9	HSE instructing at the working place before operations commencement / Personnel trained in Permit System / Follow safety worksite procedures / Control all work with appropriate Permit to Work / Hot or other Especially Hazardous Work Permit	16, 17, 20, 21	3	1	3
Equipment Unfit For Purpose	Use of potentially unfit/hazardous equipment.	Physical Injury personnel/Third party Personnel. Damage/Down time of equipment. Company reputation. Company reputation.	3	3	9	Ensure work-scope is fully detailed and supplied equipment is of correct standard / Follow mob/demob. procedures / Unfit equipment must be off-hired	17, 22 - 24	3	1	3
Fueling of Plant	Pollution/ Fire Risk	Severe Injury to Personnel/Contamination of harbour area / physical injury Down time of equipment/ Damage. Company reputation.	3	3	9	Correct storage containers and fuel transfer systems/ Use of drip trays / Emergency spill kits on site/ No refueling of hot engines/ Fire extinguishers of the correct type to be immediately available	17, 22, 23	3	1	3



LEVEL 1 ASSESSMENT										
Activity Description	Hazard Description	Potential Effects & Personnel Exposed	Severity Rating			Recommended Safe Job Procedures	Recommended Safety Requirements	Residual Severity		
			S	P	R			S	P	R
Table Legend: S = Severity P = Probability R = Risk										
Recovery of an Injured and/or Unconscious Diver	Time Delay in securing and recovering the diver to a Place of Safety Further Injury to the Diver	Injury to diver, Death. Company reputation.	3	3	9	Provision of FRC to Recover the Diver from the Water/ Use trained competent personnel / Site Toolbox Talk/ Provide adequate manning levels	17, 21 - 23	3	1	3
Tending the Diver	Fouling of the Diver's Umbilical, Damage to Diver's Umbilical	Injury to Diver/ Physical Damage to Equipment. Company reputation.	3	3	9	The tender will constantly monitor the position of the umbilical, the tender will be in direct communication with the supervisor,	17, 21 - 23	3	1	3
Diver Worksite Access and Egress	Injury to diver, diver exhaustion due to insufficient access system.	Injury to Personnel/ Third Party Personnel. Physical Damage to Equipment e.g./ Equipment Dropped. Company reputation.	3	3	9	Establish safe access and egress system/Use trained competent personnel / Site Toolbox Talk/ Provide adequate manning levels	17, 21 - 24	3	1	3
Diver Buoyancy Control	Uncontrolled, Rapid Ascent or Descent	Serious Injury to the Diver. Company reputation.	3	3	9	Detailed Planning/ Establish Down Line(s) to Job Site /	17, 21 - 23	3	1	3
Loss of Primary Air Supply	Interruption to Diver's Air Supply	Injury to diver, Death. Company reputation.	3	3	9	Use of bail-out cylinder fully charged, 2no. HP reserve lines to the diver's supply on the dive control panel	17, 21 - 24	3	1	3
Loss of Communication with the Diver	Failure of Voice Comms	Hazard to Diver due to loss of direction by supervisor. Company reputation.	3	2	6	Detailed planning of Diver Recovery Plan in the Event of Comms Failure/ Alternative Communication Plan e.g. Use of Hat Light to Signal Diver	17, 23	2	1	2
Diving in Poor In-water Visibility	Diver Entrapment, Diver Unable to Locate Worksite	Physical Injury to Diver, Lost time. Company reputation.	3	2	6	Detailed planning of work site access/ diver familiarization with the vessel and task location/ establish down lines and work lines/	17, 21 - 23	3	1	3



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Activity Description	Hazard Description	Potential Effects & Personnel Exposed	Severity Rating			Recommended Safe Job Procedures	Recommended Safety Requirements	Residual Severity		
			S	P	R			S	P	R
Table Legend: S = Severity P = Probability R = Risk										
Diving/Working in rivers	Leptospirosis (weils disease)	Illness/Injury to team	3	2	6	Adopt good hygiene procedures – cleaning hands before eating, drinking or smoking. Provide appropriate welfare facilities, including water / wipes. Wear gloves when diving, tending or handling contaminated equipment Clean equipment as appropriate Cover open wounds/cuts.	5. 17. 23. 25	3	1	3
Sharp Objects	Sharp objects/materials such as metals, cans and needles.	Physical Injury to diver such as cuts, punctures and gashes that could cause infections	3	2	6	Ensuring dive team are wearing required PPE and check the onshore site for any sharp objects or materials before commencing any operations. If water is clear then diver should scan area when walking in water. Also wearing PPE where possible with gloves etc.	1-7, 21 - 24	3	1	3
Fast Flowing Water	Potential for any member of the dive team, primarily the diver, to be swept by fast flowing water.	Drowning, severe or fatal injury, Down time, loss of equipment due to diver unable to stay on location	3	3	9	Assessment of weather and water flow before diving operations commence. Lifeline available to the diver. Good Supervision of the diver. Good tendering of the diver.	1-7, 9, 14, 17, 21-24	3	1	3



THIS RA/TSA MUST BE DISCUSSED WITH PERSONNEL DIRECTLY INVOLVED WITH THE JOB PRIOR TO JOB EXECUTION!

Attendees of Job:

Full Name	Position	Signature

Prepared by: John Mullen Operations Director 17/05/2024
(name, surname) (position) (date)

Reviewed by: Karen Mullen Operations Administrator 20/05/2024
(name, surname) (position) (date)

Authorised By: John Beaton Managing Director 20/05/2024
(name, surname) (position) (date)

Safety Representative's Responsibilities

To assist in ensuring the health and safety of all personnel, one member of the dive team shall be appointed 'Safety Representative'.

Caldive shall appoint one member of the Dive team as a Site Safety Representative. The Site Safety Representative's responsibilities will include:

- Assisting the Dive Supervisor with monitoring site safety
- Maintaining crew awareness of site safety
- Report any Hazards or Concerns (HOC) raised by the dive team to the Dive Supervisor
- Where required, attend site safety meetings

Safety Representative/Diver's Name: _____

Signature: _____

Date: _____

Appendix B – MedDive Procedure



APPENDIX 6

This is the Procedure for use of The Diving Medical Support Emergency Service

Calls will be handled by International SOS which is a 24/7 emergency call
facility

Emergency telephone number

+44 20 8762 8347

This number operates 24 hours a day.

- The operator will request caller details in case of disconnection
- State you have Diving Emergency
- State your contract is with the National Hyperbaric Centre
- You will be connected with the on-call Diving Doctor

If there is any problem with the connection or number please contact Topside
support on

+44 20 8762 8379

Appendix C – COSHH Assessment

COSHH Assessment

Oxygen

Material Name	Oxygen
Area of Use	Site. Open air in proximity to dive control and welding plant
Method of Application	By pressure hose to diver from pressurised cylinder.
Storage	Keep cylinder below 50 degrees C in well ventilated space. Secure cylinder from falling over. Segregate from other flammable materials.
Exposure Period	10 hours per day.
Health Risks	Not poisonous.
Spillage Controls	Ensure cylinder is closed when not in use. Ensure that delivery hoses are in good condition Check system for leaks
PPE	Hand and eye protection to be worn when handling cylinders.
Disposal	Return cylinder to supplier
Additional Comments	See attached data Sheet Do not smoke while handling this product.
First Aid	Inhalation not hazardous.
Fire Fighting	Exposure to fire may cause cylinders to rupture/explode. Oxidant. Strongly supports combustion. May react violently with combustible materials e.g. hydrocarbons.

Diesel Fuel

Material Name	Diesel Fuel
Area of Use	Site. Open air in proximity to dive control and welding plant
Method of Application	From steel storage containers.
Storage	To be stored in secure area. Containers (max.25l capacity) to be secured to prevent them from falling over. Segregate from other flammable materials.
Exposure Period	10 hours per day.
Health Risks	Toxic. Avoid direct skin contact and inhalation of fumes and exhaust gases.
Spillage Controls	Ensure cylinder is closed when not in use. Ensure that delivery hoses are in good condition Check system for leaks Spill kit available. Do not allow to pollute natural watercourse or drains. Store in bunded area
PPE	Hand and eye protection to be worn during refuelling of plant.
Disposal	Return all fuel to base.
Additional Comments	See attached data sheet. Do not smoke while handling this product.
First Aid	In the event of swallowing do not induce vomiting. Seek immediate medical assistance.
Fire Fighting	Exposure to fire may cause cylinders to rupture/explode. Oxidant. Strongly supports combustion. Foam or dry powder extinguishers only to be used.

Petrol

Material Name	Petrol Fuel
Area of Use	Site. Open air in proximity to dive control and welding plant
Method of Application	From steel storage containers.
Storage	To be stored in secure area. Containers (max. 25l capacity) to be secured to prevent them from falling over. Segregate from other flammable materials. Store away from sources of ignition. Designate storage area a no-smoking zone. Spill kit available. Do not allow to pollute natural watercourse or drains. Petrol vapours are heavier than air. Storage should always be downhill and downwind of any sources of ignition such as running motors.
Exposure Period	10 hours per day.
Health Risks	Toxic. Irritant. Avoid direct skin contact and inhalation of fumes and exhaust gases.
Spillage Controls	Ensure cylinder is closed when not in use. Ensure that delivery hoses are in good condition. Check system for leaks. Spill kit available. Do not allow to pollute natural watercourse or drains. Store in bunded area
PPE	Hand and eye protection to be worn during refuelling of plant.
Disposal	Return all fuels to base.
Additional Comments	See attached data sheet. Do not smoke while handling this product.
First Aid	In the event of swallowing do not induce vomiting. Seek immediate medical assistance.
Fire Fighting	Exposure to fire may cause cylinders to rupture/explode. Highly flammable. Strongly supports combustion. Foam or dry powder extinguishers only to be used.