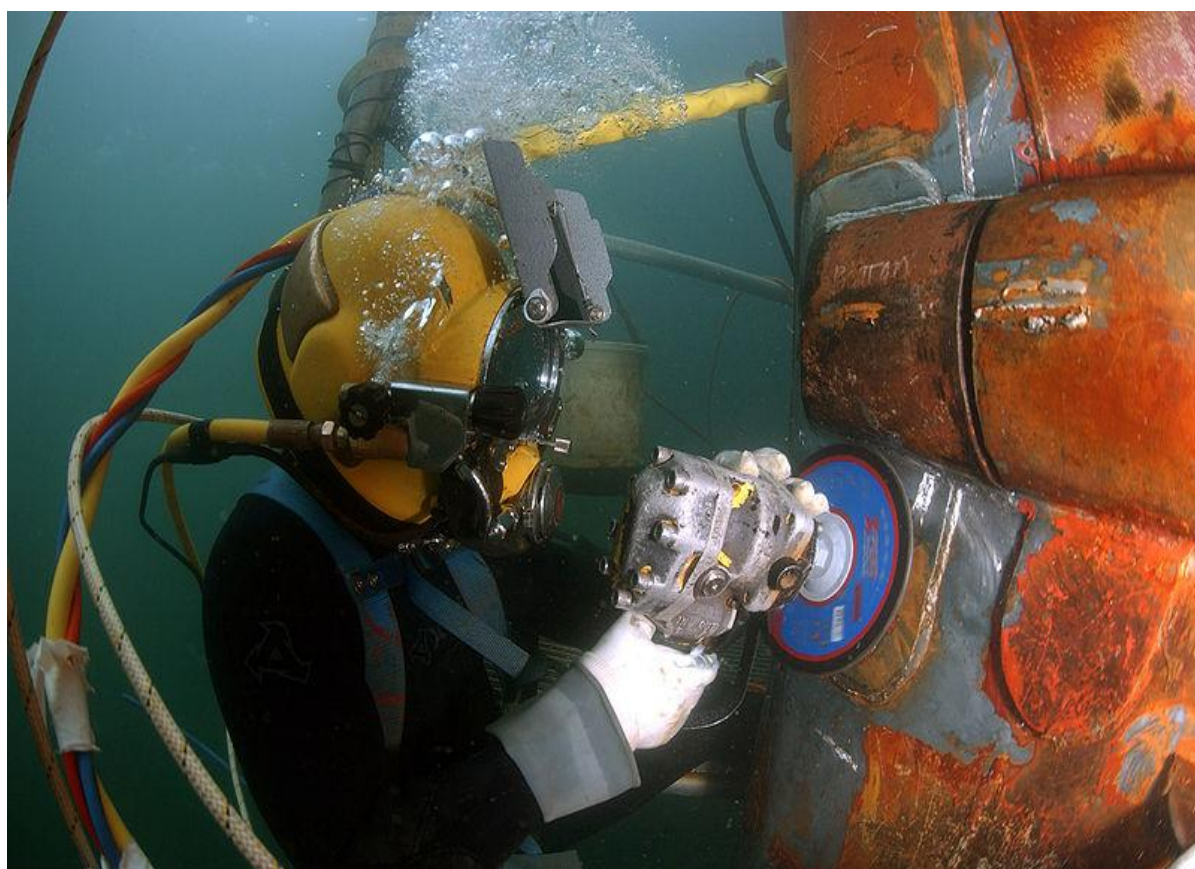




# Questionnaire for diving personnel working on the Norwegian Continental Shelf

Documentation and manual



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# **Questionnaire for diving personnel working on the Norwegian Continental Shelf**

**Documentation and manual**

**Morten Birkeland Nielsen and Stein Knardahl**

**National institute of Occupational Health, Norway**



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## **Appendix 1**

Questionnaire for diving personnel working on the Norwegian Continental Shelf English  
version

## INTRODUCTION

The offshore working environment is said to be unique in that it combines the risk and dangers of major industrial enterprises with those specific to the oil and gas extraction industry and the maritime sector (Mearns, Whitaker, & Flin, 2003). Examples of such risks and dangers include, but are not limited to, threats to the structural integrity of the installation, fire, explosion, blowout, accidents associated with the transport of personnel and supplies, dangers associated with drilling operations, diving accidents, falls, and exposure to chemicals.

Professional divers represent an occupational group in the offshore petroleum industry which operates in especially demanding working conditions. In their working situation, divers are exposed to several factors that may have negative effects on the nervous system, lungs, hearing, and general functioning.

Existing research on professional diving has mainly focused on the health-related outcomes of diving, whereas little is known about physical and psychosocial working environment of this occupational group. Hence, in order to understand how physical and psychosocial factors influence the performance, health, and well-being of professional divers there is a need for a valid and reliable survey tool that can assess the everyday working conditions among divers.

This report describes the conceptual and theoretical background of the psychological, physical, and occupation specific factors that are included in the survey questionnaire **Questionnaire for diving personnel working on the Norwegian Continental Shelf**. The relevant factors are defined, their theoretical background is described, and empirical evidence for their associations with health and well-being is presented. In addition, scoring instructions for each of the included survey inventories are described.

The questionnaire is designed for the assessment of psychological, social, and organizational work conditions. The survey tool is developed in order to 1) assess the work environment among occupational divers, 2) investigate divers perceptions of risks and safety in their working situation, 3) examine the impact of organizational factors on safety, health, and well-being, and 4) assess how occupation specific factors, such as diving episodes and intervals, influence safety, health, and well-being.

The main principle of selecting conceptual topics for the **Questionnaire for diving personnel working on the Norwegian Continental Shelf** was their relevance and importance for work, safety, health, and well-being. The questions and inventories which comprise the questionnaire are mainly established and well-known indicators of work environment factors, safety, health and well-being. Yet, due to the limited research on professional divers, the occupation-specific questions have been developed for the **Questionnaire for diving personnel working on the Norwegian Continental Shelf** specifically. The majority of questions on general work environment factors are adapted from the General Nordic Questionnaire (QPS\_Nordic) for Psychological and Social Factors at Work (Dallner et al., 2000). To be able to compare the work environment characteristics and safety perceptions of professional divers with other relevant occupational groups, such as other offshore workers, the “Trends in Risk Levels” survey tool employed by the Petroleum Safety Authority Norway has been used as a basis for the development of the questionnaire. We have also included some questions from an earlier work environment survey of professional divers conducted 1986 (Evans et al., 2012).

### **Reference group**

The reference group for the development of the **Questionnaire for diving personnel working on the Norwegian Continental Shelf** has consisted of Aud Nistov (Norwegian Oil and Gas Association), Marit Skogstad (National Institute of Occupational Health, Norway), John Arne Ask (Petroleum Safety Authority Norway), Bjarne Sandvik (Petroleum Safety Authority Norway), Leif Johansen (Industri Energi), Stein Knardahl (National Institute of Occupational Health, Norway), and Morten Birkeland Nielsen (National Institute of Occupational Health, Norway).

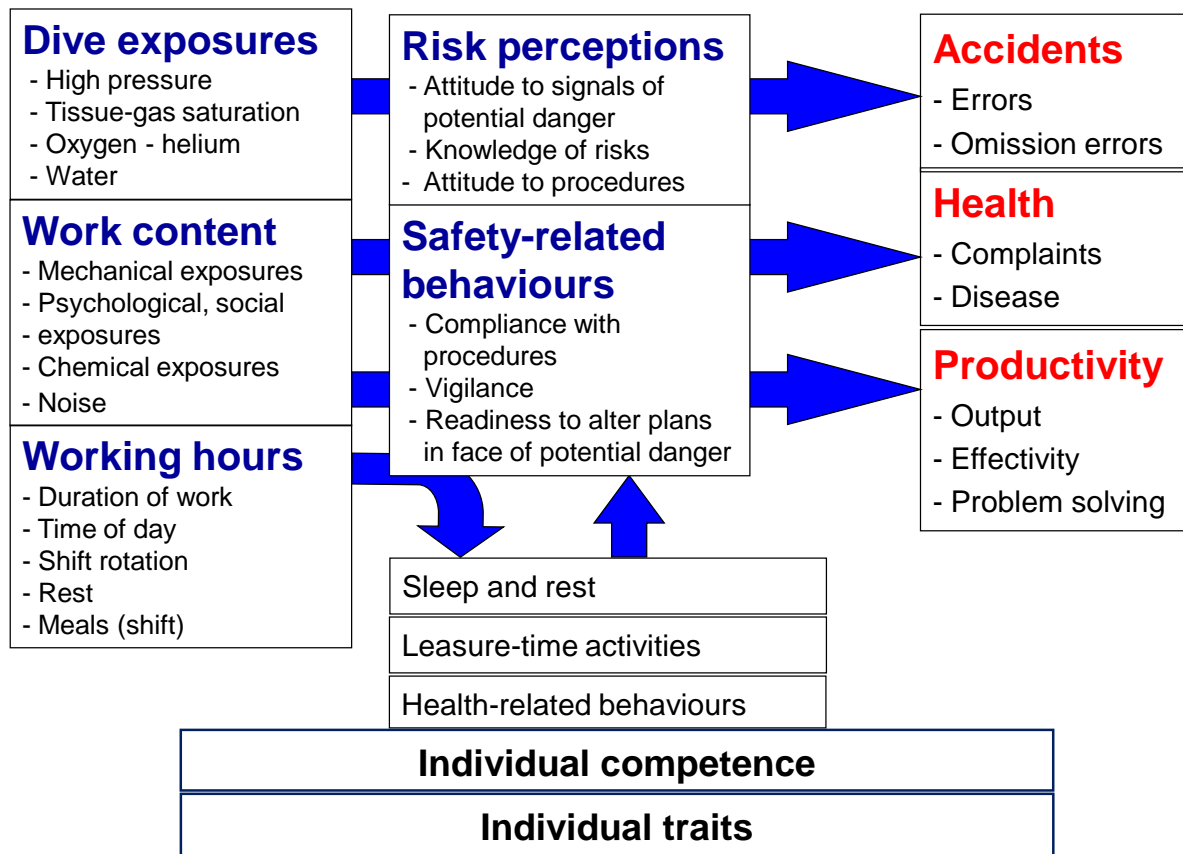
## **PRINCIPLES OF THE QUESTIONNAIRE FOR DIVING PERSONNEL ON THE NORWEGIAN CONTINENTAL SHELF**

In their comprehensive theoretical model of safety critical workplaces, Barlow and Iverson (2005) suggested that health and well-being among employees is especially influenced by occupational stressors related to 1) individual factors, 2) substance use, 3) organizational leadership, 4) characteristics of the job and organization, 5) safety factors. The importance of these factors have also been supported by empirical evidence (e.g., Cooper, Watts, & Kelly,



1987; Kirk-Brown & Wallace, 2004; Sullivan & Bhagat, 1992), among others from the offshore petroleum industry (Ljosa, Tyssen, & Lau, 2011; Nielsen, Tvedt, & Matthiesen, 2012).

In line with the abovementioned factors, the **Questionnaire for diving personnel working on the Norwegian Continental Shelf** is based on multifactorial models of safety, health, and productivity. Exposure factors pertaining to diving, work, and working hours contribute to safety, health, and productivity. However, their contribution or impacts depends on the risk perceptions and safety-related behaviors of the divers and personnel participating in running the dive operations. Risk perceptions and safety-related behaviors in turn, are influenced by sleep, rest, and other behaviors of the participants and of training and competence.



**Figure 1. Theoretical model**

Risk perception and safety are two central concepts in this model which warrant further explanation. From a scientific perspective, *risk perception* is often seen as the perceived likelihood that an individual will experience the effect of danger (Short, 1984), and has been

formally defined as the “subjective assessment of the probability of a specified type of accident happening and how concerned we are with such an event” (Marek, Tangernes, & Hellesøy, 1985, p. 152). This makes risk perception not strictly a matter of sensory perception, but also of attitudes and expectations (Sjöberg, 1998). Therefore, it has been suggested that an individual’s experience of risk can be separated into a cognitive component and an emotional or affective component (Rundmo, 2000). That is, risk perception may be described as a multidimensional construct that is a combination of an individual’s evaluation of the likelihood of experiencing an accident, injury, or harm caused by exposure to a risk source, as well as emotions and cognitions related to the source.

*Safety* refers to the absence of harm or “the condition of being protected from or unlikely to cause danger, risk or injury” (definition from the Oxford English Dictionary). In the assessment of organizational safety it is common to distinguish between safety culture and safety climate. While culture is used to capture more generic and trait-like aspects of organizations, climate is more often used to denote specific, state-like capacities of a given organization. That is, safety climate is an expression of how well safety focused behaviors and priorities are rewarded and supported in the organization. Zohar (2010) considers safety climate to be the workers shared perceptions of safety, which is heavily influenced by managerial practices and the social norms in the work group. According to Mearns, Whitaker & Flin (2003) one may see safety climate as a snapshot of selected aspects of organization safety culture at a particular point in time. Hence, when assessing safety in a questionnaire survey, it is the safety climate of a group, or the safety perceptions of an individual, which is reflected.

As displayed at the left side of the theoretical model, perceptions of risks and safety in this specific occupational setting are influenced by several different exposure factors. Dive exposures are factors related to characteristics of the work setting such as pressure, use of diving equipment, and the physical surroundings. Working hours deal with the organization of the working period such as duration, shift rotation, and leisure time. Work content has to do with mechanical, psychosocial, noise, and chemical exposures such as heavy lifting, job demands, role expectations and leadership that are not specific to diving. The saturation-divers are subjected to some exposures that differ from those of all other groups of personnel. Therefore, the questionnaire contains some sections for divers, some sections for support

personnel, and some sections that are to be answered by all. Following the theoretical model presented above, the questionnaire is structured into the following sections:

Section	Factors	To be answered by:		No of questions
		Divers	Support personnel	
<b>1.0</b>	<b>Demographics and background</b>			
	Background factors	X	X	10
<b>2.0</b>	<b>Questions for divers</b>			
	The job as diver	X		16
	Safety equipment	X		4
	Risk perception in diving	X		6
	Safety related behavior in diving	X		19
	Physical demands	X		3
	Exposure to chemicals	X		8
	General well-being	X		13
<b>3.0</b>	<b>Questions for support personnel</b>			
	Risk perception support personnel		X	5
	Safety related behavior support personnel		X	10
<b>4.0</b>	<b>Accidents, risks, and safety in general</b>			
	Accidents and near misses	X	X	3
	Risk perception	X	X	14
	Safety considerations	X	X	5
	Perceptions of safety	X	X	17
<b>5.0</b>	<b>Psychosocial work factors</b>			
	Job demands	X	X	4
	Role expectations	X	X	6
	Control	X	X	8
	Leadership	X	X	9
	Predictability and support	X	X	8
	Social climate	X	X	4
<b>6.0</b>	<b>Health and well-being</b>			
	Substance use	X	X	8
	Offshore leisure time/time off shift	X	X	5
	Well-being at work (Job satisfaction and commitment)	X	X	6
	Sleep	X	X	5
	Exercise	X	X	2
	Health	X	X	16
<b>TOTAL NUMBER OF QUESTIONS:</b>		<b>200</b>	<b>146</b>	<b>215</b>

In the following documentation, the content and scoring instructions of each section of the questionnaire will be presented.

## **1.0 BACKGROUND INFORMATION**

### **1.1 Background and organizational factors (items 1-10)**

A series of questions about demographic characteristics, such as age, leadership responsibility, and seniority, are included in the questionnaire in order to assess personal characteristics of the respondents. The questions on personal background factors are kept to a minimum, with large response categories, to ensure that the anonymity of the individual respondents is maintained. The questions are adapted from the “Trends in risk level” survey developed by the Petroleum Safety Authority Norway (2009).

The questions on organizational factors assess characteristics of the respondents’ employment relationship, and their education, experience with diving and work tasks. The questions on employment are aimed at all personnel, whereas the remaining questions on organizational factors are customized for diving personnel and support personnel.

There are no specific scoring instructions for the questions in this section.

## **2.0 QUESTIONS FOR DIVERS**

This part of the survey tool is designed to assess the background, diving specific working conditions, safety perception, and well-being of divers. Support personnel should not respond to this part of the questionnaire. All questions in this part of the survey questionnaire have been developed specifically for this questionnaire.

### **2.1 Diving specific background questions (items 11-26)**

A series of open ended questions are employed to assess diving specific areas of the respondents’ job as divers. The questions assess education, seniority, as well as characteristics of the last dive periods such as number of dives and time spent in the water.

### **2.2 Safety equipment (items 27-30)**

Four questions are included to investigate the safety equipment and the use of such equipment among divers. The questions deal with preferences for different bailout and communication systems, as well as the reliability of the safety equipment.

### **2.3 Risk perception among divers (items 31-36)**

Subsea diving operations include a series of potential risks and hazards such as accidents, injuries, and human errors. In order to examine how divers perceive the level of risk, six questions ask about how safe/unsafe divers feel with regard to different kinds of hazards. The response scale of all items is “Very safe”, “somewhat safe”, “neutral”, “somewhat unsafe”, and “very unsafe”. The questions in this section can be used as single item indicators of risk perception or summarized as a scale measuring overall levels of risk perception. When summarized, a higher score indicates perceptions of high risk.

### **2.4 Safety behavior (items 37-55)**

A series of questions about how the divers behave during subsea diving operations examine safety behavior in diving. The questions asks about whether divers prioritize production over safety, time pressure, breaching of safety procedures, use of safety equipment, and cooperation with other divers and support personnel. The five point response scale range from “Very seldom or never” to “very often or always”. The questions in this section should be used as single item indicators of risk perception. As the questions have been developed specifically for this survey there is no prior knowledge about factor structure or item functioning. Hence further psychometric evaluation is necessary in order to determine the interrelationships between the questions. Item 41, 43-46, 48, 50-51 have reversed answer categories and should be recoded when averaging all items in the scale. After recoding, a high score indicates high levels of safety behavior.

### **2.5 Physical demands (items 56-58)**

Occupational diving involves challenging physical work tasks in an extreme working environment. To investigate physically demanding workload in diving, divers are asked two questions about whether they experience palpitations and heavy breathing for extended periods when working. Responses are given on four point response scale ranging from “seldom or never” through “Many times per day”. A single item question with a seven point response scale is included to assess perceptions of overall physically demands.

## **2.6 Exposure to chemicals (items 59-66)**

This section of the questionnaire deals with exposure to chemicals and includes items about contact with drill mud, slurry, chemicals, and pollution. Additional items ask about use of protective equipment and whether or not divers worry about harmful effects of the chemical exposure. The response scale is “Very seldom or never”, “Rather seldom”, “Sometimes”, “Rather often”, and “Very often or always”. Respondents answering “Rather often” or “Very often” to items 59, 61, 64, or 65 could be considered as exposed to high levels of chemicals and/or noise. Respondents answering “rather often“ or “very often” to items 63 or 66 have worries about the effects of the exposure.

## **2.7 General well-being (items 67-79)**

Divers’ general well-being during the last two dives or in the two subsequent days following these periods is assessed with a check list comprising common health and well-being problems related to subsea work. Divers are asked about whether they experience any of the symptoms in the list and responses are provided on a scale with the alternatives “Not at all”, “A little”, “Frequently” and “Always”. The scale should be used to indicate the frequency of different health problems. The answers on item 73 (Feeling well) should be reversed in order to be coherent with the other items. If averaging scores as a scale, high scores indicate poor well-being.

# **3.0 QUESTIONS FOR SUPPORT PERSONNEL (INCLUDING REMOTELY OPERATED VEHICLE OPERATORS)**

This part of the questionnaire is similar to the previous section (for divers), but is adapted to the working tasks and conditions of support personnel. The questions deal with risk perception and safety behavior during diving operations.

## **3.1 Risk perception among divers (items 80-84)**

This section comprises five items about whether or not support personnel perceive risks related to human errors, mechanical failures, diving equipment, cooperation with team members, and accidents and near misses. The response scale is “Very safe”, “somewhat safe”, “neutral”, “somewhat unsafe”, and “very unsafe”. The questions in this section can be used as single item indicators of risk perception or summarized as a scale measuring overall levels of risk perception. When summarized, a higher score indicates perceptions of high risk.

### **3.2 Safety behavior (items 85-94)**

This section includes eight items which assess specific safety behaviors. The five point response scale range from “Very seldom or never” to “very often or always”. The overall scores on the items can be averaged in order to achieve a mean sum-score. Scores on item 91 should be reversed. A high score on the individual items, or the summarized scale, indicates unsafe behaviors.

## **4.0 QUESTIONS TO BE ANSWERED BY ALL**

### **4.1 Accidents and near misses (items 95-97)**

Three items are included to assess accidents and near misses. The two first items focus on whether the subjects' have experienced actual accidents or near-accidents at work during the last year. The final item asks whether they have observed others who have had work related accidents during the same time period. The response scale for the items is 1 "No"; 2 "Yes, once", 3 "Yes, more than once". These items have been used in previous studies on safety in the petroleum and maritime industry and are well-established indicators of accidents and near-misses (e.g., Nielsen et al., 2012)

### **4.2 Risk perception (items 98-111)**

This instrument assess how much risk respondents associate with 16 items (e.g., terror attacks, potential for accidents, reliability of alarm systems, evacuation possibilities, fires, and explosions) on a five-point scale ranging from 1 – very safe to 5 – very unsafe. The questions on risk perception are extracted from the Risk Perception Inventory (Hellesøy, Moss, & Gogstad, 1985) and the NORSCI (Tharaldsen, Olsen, & Rundmo, 2008). The risk perception items can serve as individual indicators of how safe or unsafe respondents feel with regard to potential hazards in their job, but may also be grouped together in order to make an average summarized score. The responses should not be recoded for any of the items.

### **4.3 Safety considerations (items 112-116)**

Five questions are included to assess overall perceptions of overall safety among professional divers. The five-point response scale is ranging from "very seldom or never" through "sometimes" to "very often or always". Due to their context specific nature, these questions have been developed for this survey. The items can be used as individual indicators of safety perceptions. Item 112-115 may also be summarized to scale measurement of overall safety without recoding any responses.

### **4.4 Safety perception and behaviors (items 117-133)**

Three categories of safety related questions are included in the questionnaire: 1) Involvement in accidents and near misses, 2) Safety perceptions, 3) Occupation specific safety among



divers. The questions on safety perceptions is included as a general overview of how divers perceive the safety in their job situation and are included in order to be able to make direct comparisons with related safety critical groups such as platform personnel and crew on supply ships. The occupation specific questions contain measures characteristics of the job situation specific for occupational divers.

*Safety perceptions* are measured using 17 items from the “Norwegian offshore risk and safety climate inventory” (NORSCI; Hope, Øverland, Brun, & Matthiesen, 2010; Høivik, 2009; Tharaldsen et al., 2008). The 11 first items are taken from a reduced version of the total NORSCI inventory (Nielsen, Eid, Hystad, Sætrevik, & Saus, 2013) and assess the following dimensions of safety perception: *Individual intention and motivation*, *Management prioritization*, and *Safety routines*. This reduced scale has been found to have excellent psychometric properties (Nielsen et al., 2013). The remaining six items are included on the basis of their relevance of safety perceptions among occupational divers.

Respondents were asked to rate their agreement with statements concerning elements such as individual conditions for safe work execution, behavior characteristics relevant for safety, and situational aspects that influence safety behavior. The ratings followed a five-point scale, ranging from 1 (*fully agree*) to 5 (*fully disagree*). To counteract response style bias, both positively (e.g. “My supervisor is committed to the HSE work on the facility”) and negatively keyed items are included in the inventory (e.g. “Deficient maintenance has caused poorer safety”). The positively formulated items were reverse scored; hence a score of 1 would indicate a poor evaluation of the safety climate, whereas a score of 5 would indicate a good evaluation.

Items 117 to 120 assess *individual intention and motivation* to follow safety regulations, item 121-124 assess *the management’s prioritization* of safety, whereas item 125-127 assess *the respondents’* appliance to *safety routines*. The scale can be scored by calculating the mean of all items, or by using the mean of the items of the individual subscales. Items 121-124 , 128 and 129 must be reversed on order to have the direction of responses consistent with the rest of the scale. A high score indicates positive safety perceptions. The items which are not included in the abovementioned scales are used as individual indicators of safety perceptions.

## 5.0 GENERAL WORK FACTORS

Work environment factors related to the job and organization included in the **Questionnaire for diving personnel working on the Norwegian Continental Shelf** are quantitative job demands, decision demands, learning demands, role conflict, role clarity, control of decisions, control of work intensity, predictability, and support from superiors and coworkers.

Inventories measuring these constructs are taken from the General Nordic Questionnaire (QPS\_Nordic) for Psychological and Social Factors at Work (Dallner et al., 2000). All items are measured on a scale from 1 to 5 with the following response categories “very seldom or never”, “2 = rather seldom”, “3 = sometimes”, “4 = rather often”, and “5 = very often or always”.

### 5.1 Job Demands (items 134-137)

The scales of job demands measure time pressure and the attention devoted to work. The included items focus on overtime, decision making, and level of attention. This scale represents some of the core factor of the job demands dimension found in most models of work environment. For instance, decisions demands measures demands for decision-making and attention. The items focus on demands for quick and complex decisions as well as on demands for maximum attention.

### 5.2 Role expectations (items 138-143)

Role conflict is measured using a scale comprising questions about conflicts between demands and resources, conflicting requests and conflicts between the subject’s expectations and external demands. The scale of role clarity represents the clarity of goals and objectives at work. This scale includes awareness of expectations and responsibilities.

### 5.3 Control (items 144-151)

The control over decision scale measures the subject’s perceived influence on decisions in his or her work situation. The items focus on influence on working methods, the amount of work, choice over co-workers, contacts with clients, and important decisions on the subject’s own work. The control over work intensity scale measures the subject’s perceived control of time

and pace in his or her work. The items are about setting work pace, deciding the length and time of breaks, and setting working hours.

#### **5.4 Leadership (items 152-160)**

An extensive body of research has established organizational and groups leadership as an important predictor of safety, health, and well-being in safety critical occupations (Barling, Loughlin, & Kelloway, 2002; Hofmann, Morgeson, & Gerrass, 2003; Zohar, 2002). In the **Questionnaire for diving personnel working on the Norwegian Continental Shelf**, perception of leadership among occupational divers is assessed through the constructs fair leadership and laissez-faire leadership. Fair leadership investigates workers' perceptions of the procedural justice or the fairness of the decision-making process mediated by the superior. Laissez-faire leadership refers to the avoidance or absence of leadership (Bass & Avolio, 1994). This kind of leadership is considered as the most inactive, as well as the most ineffective leadership style, and as opposed to fair leadership, laissez-faire leadership represents a non-transaction in the leader-follower dyad. Fair leadership is measured by three items from QPS\_Nordic, while laissez-faire leadership is measured by four items from the Multifactor Leadership Questionnaire (Bass & Avolio, 1994). The scales are constructed on the basis of the following frequency scoring: "1 = very seldom or never", "2 = rather seldom", "3 = sometimes", "4 = rather often", and "5 = very often or always".

#### **5.5 Predictability and support (items 161-168)**

The predictability during the next month scale measures the predictability of aspects of the job situation for the immediate future. The items focus on the predictability of tasks, coworkers and superiors one month from the present. The support from superior scale measures the perceived social support and appreciation from the immediate superior. The three items are about the support, willingness to listen to an employee with work-related problems, and appreciation of good job shown by the immediate superior. The support for coworkers scale measures perceived social support from coworkers.

### 5.6 Social climate (items 169-172)

Social climate describes various aspects of positive and negative climates in the subject's workplace. "Encouraging", "supportive", "relaxed", and "comfortable" reflects positive aspects of climate, whereas "distrustful" and "suspicious" involve negative aspects. The social climate represents the organizational climate which can be described as "snapshot", or visible side, of organizational culture. Response scale for the social climate items is: 1 "Very little or not at all", 2 "rather little", 3 "somewhat", 4 "rather much", 5 "very much".

## 6.0 HEALTH AND WELL-BEING

### 6.1 Substance use (items 173-180)

Use and abuse of legal and illegal substances such as alcohol, medication, and recreational drugs are well-known risk factors for health and safety in safety critical occupations (Barlow & Iverson, 2005). In the **Questionnaire for diving personnel working on the Norwegian Continental Shelf**, substance use is assessed by 2 sections with four items each asking about whether the respondents believe that colleagues or coworkers use alcohol, prescription drugs or illegal drugs during onshore free periods or during working periods. Responses are given on the following scale: "Very seldom or never", "rather seldom", "sometimes", "rather often", and "very often or always". The items are individual indicators of different substances

### 6.2 Leisure time (items 181-185)

Offshore leisure time is assessed by five items from the Trends in Risk Levels survey tool (Petroleum Safety Authority Norway, 2009). The questions examine levels of noise, climate, and tidiness of the cabins and accommodations quarters. The five point response scale ranges from "Very rarely or never" through "Sometimes" to "Very often or always". The items can be summarized into an overall scale or used as single indicators.

### 6.3 Well-being at work (items 186-192)

*The Job Satisfaction Scale - short version* (Brayfield & Rothe, 1951), as cited in Judge, Parker, Colbert, Heller, and Ilies (2001), was included to investigate job satisfaction among the respondents. This scale comprises item 186-190 and was chosen because it is a reliable and commonly used indicator of job satisfaction (Rafferty & Griffin, 2009). For each item,

respondents gave their answers on a 5-point Likert scale where 1= 'strongly disagree' and 5= 'strongly agree'. The answers for items 188 and 190 are reversed.

Two items (191-192) are included to assess subjects' intentions to leave the job. The items focus on whether the divers are thinking about leaving their job and whether they will look for a new job within the next year. The response scale is 1 "*Strongly disagree*"; 2 "*Disagree*", 3 "*Neutral*"; 4 "*Agree*"; 5 "*Strongly agree*")

#### **6.4 Sleep (items 193-197)**

A growing body of research shows that insomnia and insufficient sleep problems are significantly related to productivity, performance, and safety outcomes. Hence, in order to understand relationships between work environment, well-being, health, and safety among professional divers it is of importance to assess sleep habits and disturbances among divers. The five questions about sleep which are included in the survey questionnaire correspond to the questions included in the "Trends in Risk Levels" survey tool developed by the Petroleum Safety Authority Norway (2009). The response scale is "Strongly disagree", "disagree", "neutral", "agree", "strongly agree".

#### **6.5 Exercise (items 198-199)**

Whether divers exercise during onshore spare time between dive periods are examined with two questions. Respondents are asked about how many times during their last two week period onshore have exercised or been physically active and how many times they have done heavy physical exercise. Answer categories are "Never", "1 time during the last two weeks", "2 times during the last two weeks", "3-4 times per week", "More than 4 times per week".

#### **6.6 Health (items 200-215)**

The health of divers and support personnel is assessed by a list of frequently reported health issues such hearing problems, headache, muscle-skeletal pain problems, and mental health problems. Responses are provided on a four point scale ranging from "Not troubled" to "Very troubled". In addition, respondents are asked to indicate whether their symptoms are fully or partially caused by their working situation. Finally, using a single question, divers are

asked to describe their overall general health status. The items and response scale are adapted from the Trends in Risk Levels survey tool (Petroleum Safety Authority Norway, 2009).

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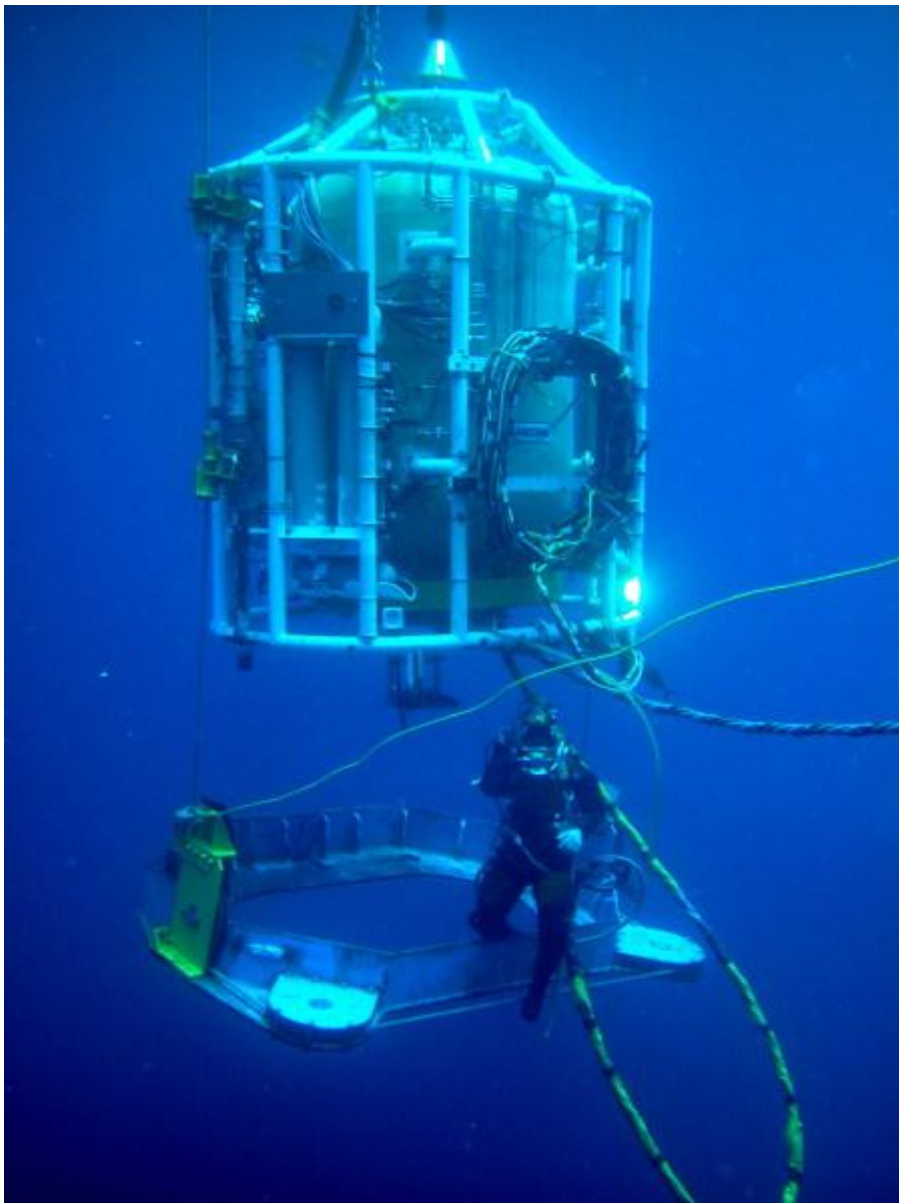


Appendix 1

**Questionnaire for diving personnel working on the Norwegian  
Continental Shelf**



## Questionnaire for diving personnel working on the Norwegian Continental Shelf



## INTRODUCTION

The Petroleum Safety Authority Norway (PSA) is the regulatory authority for technical and operational safety and for the working environment in the petroleum industry. In order to survey the working situation among occupational divers and their support personnel, the following questionnaire assesses factors related to safety perceptions and preparedness, working situation, and health and well-being.

Participation in this survey is voluntary, and you may withdraw from the survey whenever you wish without having to give a reason for doing so. The information that is collected will be anonymised and no individuals can be recognised. Everyone involved in the project is subject to a duty of confidentiality. Data will be treated confidentially, and the answers of each participant will not be made available to employers or third parties.

The more who respond to the questionnaire, the better basis for the facilities and companies to implement improvement measures. Use the opportunity to express how you perceive the working environment and safety at your workplace. Each returned questionnaire is important and participation in the study will be greatly appreciated.

**Please answer the questionnaire during your stay offshore.**

Any questions can be directed at:

John Arne Ask, PSA  
(tel +4751876118; email: [John.Ask@ptil.no](mailto:John.Ask@ptil.no))

Bjarne Sandvik, PSA  
(tel + 47518765708761, email: [Bjarne.Sandvik@ptil.no](mailto:Bjarne.Sandvik@ptil.no))

Olav Hauso  
(tel +4751876113, email [Olav.Hauso@ptil.no](mailto:Olav.Hauso@ptil.no))

Thank you for participating!

**IMPORTANT! This form will be read electronically. Therefore, it is important that it is filled in carefully. Please use a blue or black pen. Mark the box like this  unless otherwise indicated. Please use capital letters when filling in text fields as indicated:**

D	I	V	E	R
---	---	---	---	---

**Numbers should be written like this:**

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

## BACKGROUND INFORMATION

Questions about yourself and your job: For each of the questions, please respond by ticking the alternative that is most appropriate for you.

1. **Age**

- |  |  |
|--|--|
| <input type="checkbox"/> 20 years or younger | <input type="checkbox"/> 41-50             |
| <input type="checkbox"/> 21-30               | <input type="checkbox"/> 51-60             |
| <input type="checkbox"/> 31-40               | <input type="checkbox"/> 61 years or older |

2. **Leadership responsibility:**

- |                             |                              |
|-----------------------------|------------------------------|
| <input type="checkbox"/> No | <input type="checkbox"/> Yes |
|-----------------------------|------------------------------|

2a **If leadership responsibilities: Number of persons reporting to you (when offshore)**

- |                              |                                     |
|------------------------------|-------------------------------------|
| <input type="checkbox"/> 0   | <input type="checkbox"/> 6-10       |
| <input type="checkbox"/> 1-3 | <input type="checkbox"/> 11-20      |
| <input type="checkbox"/> 4-5 | <input type="checkbox"/> 21 or more |

3. **Do you have a function as a union or employee representative?**

- |                             |                              |
|-----------------------------|------------------------------|
| <input type="checkbox"/> No | <input type="checkbox"/> Yes |
|-----------------------------|------------------------------|

4. **Job experience:** How long have you held your present job?

- |   |   |
|---|---|
| <input type="checkbox"/> 0-3 months         | <input type="checkbox"/> 5-10 years       |
| <input type="checkbox"/> 4 months to 1 year | <input type="checkbox"/> 10-19 years      |
| <input type="checkbox"/> 1-2 years          | <input type="checkbox"/> 20 years or more |
| <input type="checkbox"/> 2-5 years          |   |

5. **Job tasks** (last 6 months):

- |   |  |
|---|--|
| <input type="checkbox"/> Diver                  | <input type="checkbox"/> Life support supervisor |
| <input type="checkbox"/> Dive technician        | <input type="checkbox"/> ROV operator            |
| <input type="checkbox"/> DP-operator            | <input type="checkbox"/> ROV personnel           |
| <input type="checkbox"/> Bell diving supervisor | <input type="checkbox"/> Diving superintendent   |

- Life support technician  Offshore manager
- Other: \_\_\_\_\_

6. **What is your employment relationship in your current job (mark two boxes if necessary)?**

- Permanent employment  Self-employed
- Temporary employment

7. **If temporary employment or self employment: what was the duration of the current or previous contract?**

- 1 offshore period  6 months-1 year
- 1-2 months  > 1 year
- 3-5 months

8. **How many companies have you worked for during the last 12 months?**

- Always the same company  Two or more companies

9. **How many vessels (DSV) have you worked from during the last 12 months?**

- Always the same DSV  Several DSVs

10. **What is your work shift schedule when offshore?**

- 6/6 hours  Other arrangements
- 12/12 hours

## QUESTIONS FOR DIVERS

This section deals with divers and the work as a diver. If you are not a diver, please skip this section and continue to question XX at page XX.

The questions in this section ask about different time periods. "Last period" refers to the period before your latest off-period. "Present period" refers to your current work period.

### YOUR JOB AS A DIVER

**Questions about diving**

**Write your answer here:**

- 11 Year of surface supplied diver training
- 12 Year of bell diver training
- 13 Any other education? (Write)


- 14 Years experience as saturation-diver?
- 15 Number of years in the present job?
- 16 What is your normal work area: world wide, UK sector, Norwegian sector
- 17 During the last 12 months, how many offshore dive periods have you had?
- 18 During your last dive (period), how many days did you spend in saturation?
- 19 During your last saturation period, how many hours per day did you spend in the water on average?
- 20 During your last saturation period, how many hours per day on average did you spend in the diving bell?

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- 21 During your last dives, did you have breaks with helmet off in the diving bell?  No  Yes
- 22 During your last dives, how much fluid did you drink during each bell run? -----(Liters)
- 23 Between your two last dive periods, how many days did you spend off work at surface pressure? -----
- 24 During your last dive period, how many days did you spend in saturation? -----
- 25 Approximately, how many hours pr. day did you spend in the water during these dives? -----
- 26 What was the number of days off prior to the present saturation period (If not in saturation, please refer to your last saturation period? (days off means being in atmospheric pressure, not doing any type of dive) -----(Days)

### SAFETY EQUIPMENT

- 27 Which bailout system do you prefer?  
 Rebreather  Standard bailout
- 28 During the last two years, have you ever had to activate the bailout system?  
 No  Yes
- 29 How do you regard the communication system?  
 Unreliable  Occasional malfunctioning  Acceptable  Good  Very good
- 30 Have you been trained in the use of emergency equipment in the bell or habitat?  
 No  Yes

### RISK PERCEPTION

**How safe/unsafe do you feel with regard to:**



		Very safe	Somewhat safe	Neutral	Somewhat unsafe	Very unsafe
31	Gas cut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32	Human errors during diving operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33	Mechanical breakdown during diving operations (e.g., cranes, bell handling, hot water..)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34	Personal diving equipment (including bail out)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35	Cooperation with other team members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36	Operation of the installation/platform you are working on (e.g., water inlet/outlet, crane lifting)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### SAFETY RELATED BEHAVIOR IN DIVING

		Very seldom or never	Rather seldom	Some-times	Rather often	Very often or always
<b>During the last three saturation periods:</b>						
37	Were you confident in your own capability to handle unforeseeable emergency situations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38	Did you feel in good shape when boarding the DSV for your last dive period?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39	Did you report deviations from planned procedures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40	Did you have enough time to complete your work tasks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41	Did time pressure make it hard to	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- follow safety procedures?
- 42 Were the safety procedures
- relevant for your specific task?
- 43 Did it happen that formal
- procedures were not followed?
- 44 Did you experience time pressure
- during dives?
- 45 Did you dive even if dive equipment
- was not checked according to  
procedures?
- 46 Did you dive even if not all parts of
- your diving equipment were in  
proper condition?
- 47 Have you asked for a break if you
- feel fatigue or do not feel well  
during a dive?
- 48 Were you worried about your own
- safety during diving?
- 49 Before diving: Did you consider
- task briefings to be adequate?
- 50 Did you work with divers or diving
- personnel that you regarded  
incompetent?
- 51 Did you work with supervisors or
- tender personnel that you regarded  
incompetent?
- 52 During a dive period: Did you ask
- for medical assessment if you were  
unwell?
- 53 Did you ask to be excused from
- diving if not well?
- 54 Did you break safety procedures in
- order to get things done?
- 55 Have you declined an offshore dive
- period if not feeling well?

### PHYSICAL DEMANDS

The following three questions are related to how physically demanding you find your job.

Seldom or      Some-      Daily      Many times

- | <b>During dives:</b> |   | never                    | times                    | per day                  |                          |
|----------------------|---|--------------------------|--------------------------|--------------------------|--------------------------|
| 56                   | Do you work so hard that you experience your heart beating strongly (palpitations) for several minutes? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 57                   | Do you work so hard that you breathe heavily for several minutes?                                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

58 With regard to overall physical work load, how demanding is your job (circle the answer):

- | Very little<br>demanding | Somewhat<br>demanding |   |   | Very<br>demanding |   |   |
|--------------------------|-----------------------|---|---|-------------------|---|---|
| 1                        | 2                     | 3 | 4 | 5                 | 6 | 7 |

### EXPOSURE TO CHEMICALS

- | <b>During dives:</b> |  | Very<br>seldom<br>or never | Rather<br>seldom         | Some-<br>times           | Rather<br>often          | Very<br>often<br>or<br>always |
|----------------------|--|----------------------------|--------------------------|--------------------------|--------------------------|-------------------------------|
| 59                   | Do you often work in areas in which you are exposed to mud or slurry on your suit and/or diving equipment? | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>      |
| 60                   | Do you use a coverall to protect against drill mud or other forms of pollution at the sea bed?             | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>      |
| 61                   | Do you get drill mud or slurry on your suit?   | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>      |
| 62                   | Do you clean off the mud or slurry on your suit?   | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>      |
| 63                   | Are you worried about harmful effects of drill mud or slurry   | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>      |
| 64                   | Are you exposed to welding fumes?  | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>      |

- 65 Are you exposed to high levels of chemicals and pollution when working at the sea bed?
- 66 Are you worried about harmful effects of chemicals and pollution?

### GENERAL WELL-BEING

**Did you experience any of the following during your last two saturation periods or in the two days following these periods?**

- |                                | Not at all               | A little                 | Frequently               | Always                   |
|--------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 67 Tinnitus or ringing in ears | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 68 Other ear problems          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 69 Feeling exhausted           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 70 Vertigo                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 71 Nausea                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 72 Feeling tired               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 73 Feeling well                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 74 Anxiety                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 75 Itching                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 76 Tingling or numbness        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 77 Headache                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 78 Teeth problems              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 79 Joint discomfort            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

### QUESTIONS FOR SUPPORT PERSONNEL

**The next section of questions deals with support personnel (diving supervisors, LST, LSTS, ROV supervisors, DP operators) and the job as support personnel. If you are not working as support personnel, please skip this section and continue to question XX at page XX.**

## PERCEPTION OF RISK

**How do you feel with regard to:**

	Very safe	Somewhat safe	Neutral	Somewhat unsafe	Very unsafe
80 Human errors during diving operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
81 Mechanical failures during diving operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
82 Diving equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
83 other team members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
84 Avoiding accidents and near misses during dives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## SAFETY RELATED BEHAVIOR IN DIVING OPERATIONS

<b>During the last three saturation periods:</b>	Very seldom or never	Rather seldom	Some- times	Rather often	Very often or always
85 Did you have enough time to complete work tasks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
86 Did you find it hard to follow all safety procedures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
87 Did you have to follow procedures you feel should be done differently?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
88 Did it happen that formal procedures were not followed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
89 Did you experience time pressure during diving operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
90 Did you start dives even if you were not sure if diving equipment was checked?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
91 Did you check if the divers were in good shape before dives?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

92 Did you ask divers to break safety regulations/procedures in order to get things done?

93 If a diver say he is unwell during a dive; what is your response?

---

94 What is your response if a diver asks to be excused from diving for reasons that he is not feeling well?

---

**TO BE ANSWERED BY ALL**

**ACCIDENTS AND NEAR MISSES**

		<i>No</i>	<i>Yes, once</i>	<i>Yes, more than once</i>
95	Have you yourself experienced a work-related accident involving personal injury during the last 12 months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
96	Have you yourself experienced a near-accident/'near miss' during the last 12 months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
97	Are you aware of colleagues who have had a work-related accident involving personal injury during the last 12 months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**PERCEPTION OF RISK**

**How do you feel with regard to:**

		Very safe	Somewhat safe	Neutral	Somewhat unsafe	Very unsafe
98	Weather conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99	Explosions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
100	Fires	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
101	Blowouts					
102	Acts of sabotage or terror	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
103	Reliability of alarm systems					
104	Presence of oil and gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
105	Rotating tools or machinery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
106	Evacuation possibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
107	Accessibility of first aid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
108	Training and education related to safety					
109	Safety measure and safety equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
110	Emission of poisonous gases/chemicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
111	Radioactive sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Emergency preparedness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### SAFETY CONSIDERATIONS

	Very seldom or never	Rather seldom	Some- times	Rather often	Very often or always
112 Do you experience hazardous situations during diving operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
113 Do you worry about safety during diving operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
114 Do you work with divers that are not competent for the job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
115 Do you work with colleagues that are not competent for the job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
116 In your opinion, should diving-related equipment be overhauled or renewed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### PERCEPTION OF SAFETY

**Below are some statements of importance to health, working environment and safety (HSE). Based on your experiences from your job, indicate to what degree you agree with the various statements by marking one box for each statement.**

	Fully dis- agree	Partially dis- agree	Neither agree nor disagree	Partially agree	Fully agree
117 I report any dangerous situations I see	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
118 Safety is my number one priority when I work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
119 I ask my colleagues to stop work which I believe is performed in an unsafe manner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120 I stop work if I believe that it may be dangerous for me or others to continue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



121	In practice, production takes priority over HSE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
122	Reports about accidents or dangerous situations are often “embellished”.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
123	There are often concurrent work operations which lead to dangerous situations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
124	Deficient maintenance has caused poorer safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
125	I have the necessary competence to perform my job in a safe manner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
126	I have easy access to personal protective equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
127	The management takes input from the safety delegates seriously	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
128	At times, I am preassured to work in ways that threaten safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
129	I sometimes brake safety rules in order to get a job done quickly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
130	I use mandatory personal protection equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
131	I have been given adequate safety training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
132	The accident preparedness is good	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
133	I always know who to report to in the organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### GENERAL WORK FACTORS

		Very seldom or never	Rather seldom	Some- times	Rather often	Very often or always
134	Do you have to work extended shifts or longer periods onboard?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
135	Does your work require quick decisions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
136	Does your work require maximum attention?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

137	Does your work require complex decisions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**ROLE EXPECTATIONS**

		Very seldom or never	Rather seldom	Some- times	Rather often	Very often or always
138	Do you have to do things that you feel should be done differently?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
139	Are you given assignments without adequate resources to complete them?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
140	Do you receive incompatible requests from two or more people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
141	Have clear, planned goals and objectives been defined for your job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
142	Do you know what your responsibilities are?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
143	Do you know exactly what is expected of you at work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**CONTROL**

		Very seldom or never	Rather seldom	Some- times	Rather often	Very often or always
144	If there are alternative methods for doing your work, can you choose which method to use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145	Can you influence the amount of work assigned to you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
146	Can you influence decisions concerning the persons you will need to collaborate with?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147	Can you influence decisions that are	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	important for your work?					
148	Can you set your own work pace?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
149	Can you decide yourself when you are going to take a break?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
150	Can you decide the length of your break?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
151	Can you set your own working hours (flexitime)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### LEADERSHIP

		Very seldom or never	Rather seldom	Sometimes	Rather often	Very often or always
152	Does your immediate superior encourage you to participate in decisions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
153	Does your immediate superior encourage you to speak up when opinions differ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
154	Does your immediate superior encourage you to develop skills?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
155	Does your immediate superior treat the workers fairly and equally?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
156	Is the relationship between you and your immediate superior a source of stress to you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
157	Has your immediate leader avoided telling you how to perform your job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
158	Does your immediate leader avoid making decisions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
159	Does your immediate leader avoid getting involved when important issues arise?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
160	Is your immediate leader absent when needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### PREDICTABILITY AND SUPPORT

		Very seldom or never	Rather seldom	Some- times	Rather often	Very often or always
161	Do you know in advance what kind of job to expect a month from now?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
162	Do you know in advance who will be your co-workers a month from now?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
163	Do you know in advance who will be your superiors a month from now?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
164	If needed, can you get support and help with your work from your immediate superior?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
165	If needed, is your immediate superior willing to listen to your work-related problems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
166	Are your work achievements appreciated by your immediate superior?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
167	If needed, can you get support and help with your work from your co-workers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
168	If needed, are your co-workers willing to listen to your work-related problems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### SOCIAL CLIMATE

**What is the climate like at your work place?**

		Very little or not at all	Rather little	Some- what	Rather much	Very much
169	Competitive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
170	Encouraging and supportive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
171	Distrustful and suspicious	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

172 Relaxed and comfortable

**SUBSTANCE USE**

**A. During onshore free periods, do you believe any of your colleagues or coworkers use any of the following substances:**

	Very seldom or never	Rather seldom	Some- times	Rather often	Very often or always
173 Alcohol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
174 Prescription drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
175 Cannabis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
176 Other illicit (i.e., illegal drugs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**B. During work periods, do you believe any of your colleagues or coworkers use any of the following substances:**

	Very seldom or never	Rather seldom	Some- times	Rather often	Very often or always
177 Alcohol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
178 Prescription drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
179 Cannabis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
180 Other illicit (i.e., illegal drugs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**TIME OFF SHIFT**

**Below are some elements concerning off-shift (offshore). Indicate how satisfied or dissatisfied you are with the different matters.**

Very satisfied	Satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Very dissatisfied
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- |     |  |                          |                          |                          |                          |                          |
|-----|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 181 | Is there disturbing noise in the public rooms in the accommodation quarters?           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 182 | Is there disturbing noise in your cabin?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 183 | Do you find the indoor climate poor in the public areas of the accommodation quarters? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 184 | Do you find the indoor climate poor in your cabin?                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 185 | Are the accommodation quarters clean and tidy?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

### WELL-BEING AT WORK

Please indicate your agreement with the following items.

- |     |   | Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
|-----|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 186 | I feel fairly satisfied with my present job                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 187 | Most days I am enthusiastic about my work                               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 188 | Each day at work seems like it will never end                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 189 | I feel real enjoyment in my work  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 190 | I consider my job to be rather unpleasant                               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 191 | I often think of leaving my job   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 192 | It is possible that I will look for a new job within the next 12 months | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

### SLEEP

Indicate how often you feel that the various statements apply to you.

		Very rarely or never	Quite rarely	Some- times	Quite often	Very often or always
193	I sleep well when offshore	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
194	I sleep well the last few nights before going offshore	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
195	I sleep well the first nights after an offshore period	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
196	I have a problem with noise when sleeping offshore	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
197	I must share cabins with others when I sleep	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### EXERCISE

The following questions relate to exercise during your onshore spare time between dive periods.

	Never	1 time during last two week period	2 time during last two week period	3-4 times per week	More than 4 times per week
198	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<p><u>...exercised or been physically active?</u> All activities lasting for more than 10 min in which you were breathless, warm, and had high pulse rate should be reported (only in spare time).</p>				
199	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<p><u>...done heavy physical exercise?</u></p> <p>All activities lasting for more than 30 min in which you sweated and were breathless should be reported</p>				

(only in spare time).

## HEALTH

During the last three months, have you been troubled by.....

	Not troubled	A little troubled	Quite troubled	Very troubled	Mark ("X") here if you feel that your symptoms are fully or partially caused by your work situation
200 Reduced hearing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
201 Tinnitus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
202 Ear infections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
203 Headache	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
204 Neck/shoulder/arm pain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
205 Back pain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
206 Knee/hip pain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
207 Eye problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
208 Skin problems (eczema, rash diver hands, infections)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
209 White fingers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
210 Allergic reactions/hypersensitivity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
211 Stomach/bowel problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
212 Respiratory problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
213 Cardiovascular problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
214 Psychological problems (anxiety, depression,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



sadness, unease)

215. How would you generally describe your health?

Very good    Good    Neither good nor poor    Poor    Very poor

**We have now asked all our questions. If you have opinions or comments to the topics raised in this form or in your answers, you can write them here. Please use capital letters.**



National Institute of Occupational  
Health

Pb 8149 Dep; 0033 Oslo; NORWAY

Phone: 23 19 51 00

Email: [stami@stami.no](mailto:stami@stami.no)

[www.stami.no](http://www.stami.no)



**National Institute of  
Occupational Health**