#PROJECT TITLE#

EGS Project Ref.: #PROJECT NUMBER#

PROJECT EXECUTION PLAN: PART 2

PROJECT HSE PLAN and BRIDGING DOCUMENT

Project HSE Plan Document Revision History

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Abbreviations

BOSIET	Basic Offshore Survival and Emergency Training
CPT	Cone Penetration Test
ERP	Emergency Response Plan
HSE	Health, Safety Environment
JHA	Job Hazard Analysis
JSA	Job Safety Assessment
OHSE	Occupational Health Safety and Environment
OPITO	Offshore Petroleum Industry Training Organization
SSS	Side Scan Sonar

PROJECT HSE PLAN TABLE OF CONTENTS

1. INTRODUCTION

This project HSE (Health, Safety and Environment) Plan deals with HSE related aspects for this particular project. It also acts as a bridging document between EGS HSE Management System and the [VESSEL OPERATORS] HSE Management System. DELETE AS APPROPRIATE

This document should be read in conjunction with the EGS-QUA-D-6001 QHSE Manual, and any Operational Procedures referenced therein.

2. TRAINING AND COMPETENCE

EGS personnel have appropriate professional and technical qualifications, competencies and offshore experience to perform their tasks safely.

All EGS personnel have completed an Offshore Petroleum Industry Training Organization (OPITO) recognized Basic Offshore Survival and Emergency Training (BOSIET) or similar and HUET course from a recognised institute.

All EGS personnel shall be deemed fit for work offshore by passing an OGUK/UKOOA (Oil and Gas UK) medical.

3. VESSEL INDUCTIONS

All personnel will have a vessel induction carried out by the vessel Master or nominee. This will enable personnel to become familiar with the vessel layout and emergency aids.

The [VESSEL OPERATORS] HSE Management System states that vessel inductions will be carried out for all personnel within 24 hours of them signing onto the vessel and before the vessel sets sail.

OR

Vessel inductions must be carried out for all personnel within 24 hours of them signing onto the vessel and before the vessel sets sail.

4. VESSEL AUDIT

An EGS Management representative will conduct an audit of the vessel prior to the commencement of operations. This will be carried out in accordance with EGS-HSE-P-5509 Vessel HSE Audit Procedure. DELETE AS APPROPRIATE

5. PERSONAL PROTECTIVE EQUIPMENT

All EGS personnel will be issued with PPE in accordance with EGS-HSE-D-5004 PPE Standards. EGS PPE Standards conform to the [VESSEL OPERATORS] HSE Management System requirements. All individuals are responsible for wearing the correct PPE at all times.

6. HAZARD AND RISK REGISTER

The EGS-HSE-T-5509 Hazard and Risk Register Template contains a list of tasks or areas with any associated hazards and risks as well as preventative controls and recover mechanisms. As many of the hazards and risks can be project specific, the list has been reviewed and updated during the project Hazard and Risk Workshop. The project specific hazard and risk register: EGS-AU######-5509 Hazard and Risk Register was created during the hazard and risk workshop, carried out at EGS office by the EGS QHSE Manager, EGS Project Manager, EGS Party Chief and members of the EGS survey crew as well as the #Client# Project Manager.

7. OPERATIONS

7.1 RIGHT TO STOP WORK

All EGS employees and contractors have the Right to Stop Work if they feel a task is unsafe or if they do not understand their responsibilities during the task. If a task is stopped, it will be reassessed and any unsafe conditions, procedures or acts shall be made safe prior to continuing.

7.2 TASK PLANS, JOB HAZARD ANALYSIS AND TOOLBOX TALKS

A Job Hazard Analysis will be carried for any task where the requirement for such is identified in EGS-AU######-5509 Hazard and Risk Register. The requirement for JHAs and toolbox talks may also be identified during HSE meetings, or on the instruction of the EGS Party Chief.

Tasks identified as requiring Task plans/JHAs and toolbox talks include, but are not limited to the following:

- Personnel joining the vessel DELETE AS APPROPRIATE
- Boarding vessel
- Driving to and from work site - 5401 Vehicle Checking Procedure
- Manual Handling (loading and unloading equipment and boxes, installing and securing equipment on benches) - National Standard For Manual Tasks_2007.

- Electric Arc and Gas Welding, grinding (To be performed by a licensed contractor)
- Control of 3rd Party Contractors, i.e. divers, welders
- Confined Space Entry - 5204 Confined Space Entry
- Working at heights - 5205 Working at Height
- Crane operations - 5206 Lifting Operations
- Securing over side equipment mountings
- Diving operations (To be performed by a licensed contractor)
- Electrical equipment and wiring- AS/NZS 3000:2007 Wiring rules
- Working on deck, use of ladder
- Long working hours, driving at night, noisy working environment- Managing the risk of fatigue_2013
- Influence of alcohol and drugs
- Sea state weather conditions
- Entering and existing water tight compartments
- Working in cluttered and untidy environment
- Back deck general operations
- Deployment and recovery of over side transducer poles or other equipment
- Deployment and recovery of survey equipment (SSS, pinger, boomer etc) also includes coring and grab sampling
- Drop core wire
- Offshore boat transfers
- Soil Sampling (Core cutting and general related work)
- Working over side vessel
- Using sharp hand tools
- Running 380V generator on vessel
- Operating winches
- Towing subsurface and surface equipment
- Impact of survey equipment on live pipeline, umbilicals
- Manual handling of survey equipment
- Unexpected change in weather conditions
- Surveying with towed sensors over or near subsea structures including platform footings and pipelines.
- Launching/recovering inshore survey boat from offshore vessel
- Working close to high energy surf, shoals
- Offshore vessel working close to shore, landing site
- Inshore vessel working far away from offshore vessel
- Positioning of offshore vessel (during CPT or Vibrocore operation)
- Marine CPT operation

- Marine Vibro-Core operation
- Diving where jelly fish and salt water crocodiles may be present
- Operating within 500m zone of a platform
- Diving operations DELETE AS APPROPRIATE

- Deployment and recovery of SVPs/CTDs. DELETE AS APPROPRIATE
- Vessel movements in extreme weather conditions (if applicable on site). DELETE AS APPROPRIATE
- Vessel working in the vicinity of fixed installations (to be confirmed on site if this is applicable). DELETE AS APPROPRIATE
- Deployment and recovery of acoustic release. DELETE AS APPROPRIATE
- Deployment and recovery of side scan sonar and magnetometer in piggy back configuration. DELETE AS APPROPRIATE
- Working on back deck in rough weather. DELETE AS APPROPRIATE
- Working at height to secure GPS antennas. DELETE AS APPROPRIATE
- Lifting of equipment onto the vessel. DELETE AS APPROPRIATE

Likewise, where critical tasks are not controlled by procedures, a Job Hazard Analysis (JHA) will be conducted on board the vessel. The analysis will be developed by all personnel involved in the particular task in hand, documented and added to the HSE Plan.

The following tasks have been identified as critical and require controls to mitigate hazards. The following JHA templates are provided to be used on this project as the basis of job specific JHAs to be completed in the EGS Survey Pty Ltd format 5200 Job Hazard Analysis Form.

- HSE10R_JHA_001 Drop and Recover Boomer
- HSE10R_JHA_002 Drop and Recover -Digital Streamer
- HSE10R_JHA_003 Drop and Recover Echo Sounder
- HSE10R_JHA_004 Drop and Recover SBP
- HSE10R_JHA_005 Drop and Recover Seismic Source
- HSE10R_JHA_006 Drop and Recover SVP Dip
- HSE10R_JHA_007 Drop and Recover Tow Fish
- HSE10R_JHA_008 Drop and Recover USBL Beacon
- HSE10R_JHA_009 Drop and Recover USBL Moonpool
- HSE10R_JHA_010 Data and Document Transfer
- HSE10R_JHA_011 Drop Coring
- HSE10R_JHA_012 Equipment Installation
- HSE10R_JHA_013 Personnel Transfer

- HSE10R_JHA_014 Platform Operation 500m Zone
- HSE10R_JHA_015 Vessel Mobilisation
- HSE10R_JHA_016 Vessel Operations
- HSE10R_JHA_017 Vibro Coring
- HSE10R_JHA_018 Working at Shallow Water
- HSE10R_JHA_019 Working in the Vicinity of Crocodiles
- HSE10R_JHA_023 Drop and Recover Tide Station
- _HSE10R_JHA_026 Land Topographic Survey
- HSE10R_JHA_027 Levelling Survey
- HSE10R_JHA_028 Monitoring Survey
- HSE10R_JHA_029 Landfall Survey
- HSE10R_JHA_034 Hot Work
- HSE10R_JHA_036 Drop and Recover USBL Calibration Beacon
- HSE10R_JHA_037 Drop and Recover Marine CPT
- HSE10R_JHA_040_ Drop and Recover Transducer pole

7.3 PERMIT TO WORK

The [VESSEL OPERATORS] HSE Management System states that a Permit to Work (PTW) is required for the following tasks:

OR

The requirement for a Permit to Work (PTW) is identified in EGS-AU#######-5509 Hazard and Risk Register or on the instruction of the Vessel Master. Tasks identified as requiring PTW and toolbox talks include, but are not limited to the following: DELETE AS APPROPRIATE

OR

No requirements for PTW (permit to work) have been identified in EGS-AU016512-5509 Hazard and Risk Register. However PTW requirements may be decided on site at the discretion of the Vessel Master. DELETE AS APPROPRIATE

- Climbing up top deck (e.g. for placement of GPS antennas) near radars.

7.4 BACK DECK AND DESIGNATED DANGER ZONE

A designated 'danger zone' or 'outer back deck' area will be defined on the back deck of the vessel by the Vessel Master and DELETE AS APPROPRIATE EGS Party Chief. Whilst at sea, any EGS personnel or sub contractors wishing to enter this area must do so with another individual. At no point should an individual enter this area alone.

The bridge must be notified before accessing the designated 'outer back deck' area.

7.5 HOUSE KEEPING

All working areas are to be kept as clean and tidy as possible. Tools, equipment and rubbish must be properly stored or disposed of after use.

7.6 ROUTINE CHECKS

Routine checks of wire ropes, chains, shackles and hooks which are subject to load must be made and any worn items to be replaced immediately. These checks will be included in the relevant JHAs.

Routine checks will be carried out on emergency alarms, communications e.g. medic room telephone, as well as visual checks on PPE and life saving aids.

7.7 FIRE PREVENTION

The following precautions for fire prevention have been identified for this project:

- Waste materials, such as sacks, used oil filters, soft rope, or oily rags must not be accumulated in confined spaces on the vessel.
- NO SMOKING other than in designated smoking areas.
- Periodic removal of lint from tumble dryers. DELETE AS APPROPRIATE

7.8 VESSEL OPERATING HOURS

It is imperative that the vessel arrives back before nightfall.

8. HSE MEETINGS

8.1 GENERAL HSE MEETINGS

General HSE meetings are HSE meetings where all survey crew and usually any other people taking part in field operations are present.

A General HSE meeting involving all field personnel shall be held pre-mobilisation or as soon as is practical. This meeting will provide the workforce with an overview of the work to be carried out, outline the major hazards and control measures in place, HSE goals and targets, roles and responsibilities and describe the documentation to be read and understood.

General HSE meetings will be held at least once per week thereafter.

OR

Due to the short duration of the field work it is anticipated that no further General HSE meetings will be held. If the project is extended a General HSE meeting will be held weekly.

Any HSE related matters will discussed during daily operations meetings between the EGS Party Chief, Client Representative and Vessel Master.

8.2 TOOLBOX TALKS

Toolbox talks are to be carried out where the requirement is identified in the EGS-AU######-5509 Hazard and Risk Register, General HSE meetings or on the instruction of the EGS Party Chief or .

8.3 SHIFT HANDOVERS

Shift handovers will be carried by the following EGS personnel at change of shift:

- Survey Engineers
- Online Surveyors

Further information can be found in EGS-HSE-D-5009 HSE Meeting Requirements.

9. HSE STATISTICS

The EGS Party Chief is responsible for logging HSE related information throughout the duration of the project. HSE statistics will be gathered from the following:

- Hazard ID cards
- JHAs
- Permit to Work
- Safety Drills
- General HSE meetings
- Survey man hours worked (based on 24hr days per person)
- Incident and near miss investigation reports

This data is provided on a daily basis as part of the Daily Operations Reports (DORs).

10. ROUTINE WASTE DISCHARGES AND EMISSIONS

10.1 SEWAGE

Sewage disposal will conform to the requirements of MARPOL Annex IV and will be macerated to a diameter of less than 25 mm, prior to disposal. No sewage wastes (ground or unground) will be discharged within 12 nautical miles of any land. No significant environmental impacts are expected because of the biodegradability of the waste, short period of survey activities and large dilution

factor. Total nutrient (nitrogen and phosphorus) input levels will be insignificant compared with natural levels in most bodies of seawater.

10.2 SOLID WASTES

No solid wastes, other than macerated food scraps and treated sewage waste will be discharged from the vessel during the project. All solid wastes, such as packaging and domestic wastes, will be segregated into clearly marked skips prior to onshore disposal. In accordance with MARPOL 73/78 regulations, no plastics or plastic products of any kind are to be disposed of overboard. No domestic waste i.e. cans, glass, paper or other waste from living areas is to be discharged overboard. No maintenance wastes i.e. paint sweepings, rags, deck sweepings, oil soaks, machinery deposits etc., are to be disposed of overboard. All combustible items must be separated for onboard incineration. All other items must be compacted (if possible) and stored in designated areas for proper disposal onshore.

10.3 CHEMICAL AND HAZARDOUS WASTES

All chemical and hazardous wastes, such as cleaning products, acids, solvents, toxic waste and medical waste, must be segregated into clearly marked containers prior to onshore disposal. No significant environmental impacts are expected as chemical and hazardous wastes will not be discharged to the ocean. All storage facilities and handling equipment must be segregated in good order and designed in such a way as to prevent and contain any spillages as far as practicable.

10.4 ADOPTED PROCEDURE:

- The vessel will be supplied with a rubbish container for the storing of all generated waste.
- Waste lubricants and oils will be contained onboard either in dirty oil tanks and/or in sealed drums on deck.
- Bilge water will be contained onboard the vessel.
- Food scraps may be discharged overboard only after the vessel's macerator has processed the waste and providing the vessel is not within an environmentally sensitive area or strict limits - 3 nautical miles if the food scraps are macerated to <25mm or 12 nautical miles otherwise.
- All other waste (cardboard, paper, plastics etc.) will be bagged and stored in the rubbish skip provided.
- Waste will be disposed at each port of call using a waste removal contractor.

11. INCIDENT INVESTIGATION AND REPORTING

EGS considers proper incident and near miss reporting to be of up most importance in order to analyse develop appropriate protective measures to prevent a reoccurrence. Therefore, all individuals are required to report incidents and near misses to the EGS Party Chief.

It is the responsibility of the EGS Party Chief to inform the EGS Project Manager and if applicable, the client representative, at least verbally, as soon as possible or as soon as any mitigating action has been completed.

An Incident Investigation will be carried out in accordance with EGS-OPS-P-5002 Incident Investigation and Reporting.

12. RESPONSIBILITIES

This section highlights the key responsibilities necessary for the safe execution of this project.

12.1 EGS PROJECT MANAGER

The EGS Project Manager is responsible to approve the appropriate trained and competent EGS personnel to be involved in this project. Any incident reporting shall be reviewed and where necessary, investigated by the Project Manager.

12.2 EGS QHSE MANAGER

The EGS QHSE Manager is the designated Management Representative on Quality, Health, Safety and Environment. He shall have the following responsibilities:

- Administering and maintaining the HSE related components of the company's Management System.
- Keeping Managers informed of their HSE responsibilities.
- Ensuring that all relevant safety documentation is available to all employees.
- Monitoring the working practices activities.
- Reviewing, upgrading and authorisation of all EGS safety documentation on a regular basis.
- Organising outside Safety Training as required.
- Maintaining a safety database on all EGS staff and contractors and keeping hard copy records of all Safety Training.
- Recording all reported incidents and maintaining a Safety Statistics Register.
- Assisting the Management team in the investigation of all major incidents and accidents and to follow up on any corrective actions to be implemented.

12.3 THE VESSEL MASTER

The Vessel Master's responsibilities include, but are not limited to the following:

- Overall in charge of all operations taking place on the vessel. DELETE AS APPROPRIATE
- Overall responsibility for the health and safety of all persons on board the vessel. DELETE AS APPROPRIATE
- Ensure all personnel on board have been inducted in accordance with the [VESSEL OPERATORS] HSE Management System.

- The safe navigation of the vessel.
- Maintain the vessel in a condition that does not compromise the health and safety of persons on board.
- The provision and maintenance of a safe means of embarking and disembarking the vessel.

12.4 EGS PARTY CHIEF

The Party Chief's responsibilities include the following:

- Overall in charge of all operations. DELETE AS APPROPRIATE
- Overall in charge of all land based operations. DELETE AS APPROPRIATE
- Ensure all personnel on board have been inducted within 24 hours of them signing onto the vessel and before the vessel sets sail. DELETE AS APPROPRIATE
- Providing leadership to the survey team.
- Ensuring that the team are aware of HSE requirements and promotion of a safety conscious attitude, including the correct issuing and wearing of Personal Protection Equipment (PPE).
- Ensuring JHAs are completed as appropriate.
- Ensuring Toolbox talks are carried out when deemed necessary.
- Organises and attends Safety Meetings in the field.
- Report incidents to the EGS Project Manager.
- Collects and archives Hazard IDs Reports and ensures they are received by the EGS QHSE Manager.
- Communicates hazards (e.g. those identified in Hazard ID Reports) to all personnel.

12.5 INDIVIDUALS

Responsibilities for individuals include, but are not limited to the following:

- Attend HSE Inductions and project briefings.
- Be familiar with this HSE Plan.
- Be familiar with the EGS-AU######-5509 Hazard and Risk Register.
- Participate in JHAs.
- Be familiar with the emergency evacuation procedures.
- Check lifejacket location and integrity.
- Know the location and operation of alarms.
- Report hazards and incidents (e.g. Hazard ID cards).

13. PERFORMANCE ASSESSMENT AND FEEDBACK

HSE performance monitoring will be carried out as an ongoing process during the work as well as a final assessment with feedback provided by the client to the contractor at the completion of work.

Upon completion of final deliverables at the project close, the client will be asked to fill out Client Satisfaction Questionnaire to determine how EGS performed during the project and to be made aware of any areas of improvement.