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Abstract

The use of machine learning models for optimization and improved decision-making has a great potential in the drilling industry. This thesis demonstrates a model for predicting fuel consumption on the Mobile Offshore Drilling Unit (MODU) Deepsea Atlantic, which is a semi-submersible drilling rig currently operating on the Fram field in the North Sea. A Multi-layer Perceptron (MLP) artificial neural network is proposed as a tool for setting fuel consumption related performance goals for offshore personnel on the MODU. A dashboard layout for presenting fuel related performance goals to offshore personnel based on the predictive model is also proposed in this thesis. This method for presenting performance goals is inspired by Equinor's "Perfect well" and Shell's "Drilling the Limit" performance philosophies. Implementing performance goals for offshore personnel has the potential to develop a pursuit of operational excellence through a collaborative and competitive mindset, and as a result lead to a significant improvement in fuel efficiency.

Operational modes, environmental and positional data have been used as input variables for the MLP model with a data set split into an 80 % training set and a 20 % test set for performance validation. The best results came with three hidden layers in the neural network architecture with 38 neurons in each hidden layer. The Adam solver performs better than the Stochastic Gradient Descent (SGD) solver for weight optimization, and the best α parameter for the L2 regularization term is 0.0001 with the Adam solver. The MLP regression model predicts the fuel consumption for the test set with a Root Mean Square Error (RMSE) of 0.0770. Results indicate that an artificial neural network and the MLP regressor is a suitable algorithm for predictive modelling of fuel consumption on a MODU.

Preface

I would like to thank my supervisor Prof. R. M. Chandima Ratnayake at the University of Stavanger and external supervisor Per Lund from Odfjell drilling for support and guidance throughout the process of writing this master's thesis and the associated conference article for the 2019 International Conference on Industrial Engineering and Engineering Management (see Appendix A). I would also like to express my appreciation to the employees of Odfjell Drilling for enthusiastically sharing their insights and knowledge on the industrial challenge discussed in this thesis. Valuable support and guidance related to data collection and analysis by Thomas Borsholm and André Bådsvik was greatly appreciated. I would also like to thank Steinar Holst for taking me on a tour on board Deepsea Atlantic at the Coast Center Base at Ågotnes before starting this thesis. I am very much looking forward to continuing my work as a part of the Odfjell Drilling team after finishing my studies. Finally, I want to express my gratitude towards Anders for valuable support and to fellow students at UiS for giving advice and sharing their ideas and valuable inputs for this thesis and previous work throughout my engineering studies.

Maria Antun Hjellvik

Stavanger, June 2019.

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Nomenclature

List of Abbreviations

AHDD	Active Heave Drilling Draw-works
AI	Artificial Intelligence
ARIMA	Autoregressive Integrated Moving Average
DP	Dynamic Positioning
DSA	Deepsea Atlantic
GP	Gaussian Process
HVAC	Heating, Ventilation and Air Conditioning
KPI	Key Performance Indicator
LSTM	Long Short-Term Memory
MAE	Mean Absolute Error
MAPE	Mean Absolute Percentage Error
MLP	Multi-Layer Perceptron
MODU	Mobile Offshore Drilling Unit
MP	Mud Pump
MSE	Mean Square Error
MSE	Mechanical Specific Energy
MW	Mooring Windlass

ReLU	Rectified Linear Unit
RMSE	Root Mean Square Error
SGD	Stochastic Gradient Descent
SVM	Support Vector Machine
TOB	Torque on Bit
VFD	Variable Frequency Drive
WOB	Weight on Bit

List of Symbols

α	Penalty parameter for L2 regularization term
ε	Learning rate
$\hat{y}$	Predicted output
ρ	Density
b	Intercept
k_0	Engine load
P	Power
q	Fuel consumption
s	Standard deviation
s_f	Specific fuel consumption
u	Mean value
W	Connection weight
x	Input feature value
y	Actual output

1. Introduction

1.1 *Background and previous research*

A floating semi-submersible drilling rig, or Mobile Offshore Drilling Unit (MODU), is powered by a diesel-electric power plant. The power demand varies with different operational activities and environmental conditions on the MODU. Studying the impact of these variations on the fuel consumption could be one of the methods to improve energy management on a MODU. Improved energy management results in reduced in fuel expenditures and CO_2 emissions [1]. In this context, setting performance goals related to fuel consumption based on short-time predictions provides an approach for improving energy management on a MODU.

A machine learning approach has previously been used to predict fuel consumption in commercial buildings in different climate zones in a paper by A. Rahman and A. Smith [2]. This model used weather variables and schedule variables as input features, and the paper concluded that neural network and Gaussian Process (GP) regression performed better than multivariate regression and ridge regression for this case. An artificial neural network model with back-propagation was developed by N. Togun and S. Baysec to predict the specific fuel consumption of a gasoline engine [3]. A successful model constructed with a 3-13-1 neural network architecture was developed, and this resulted in a correlation coefficient of 0.98331 for the test set. S. Wang et al. researched the use of LASSO regression for predicting fuel consumption on a ship under different sea-states and weather conditions [4]. Hence, it should be possible to use a similar approach for predicting fuel consumption on a MODU.

The wide range of machine learning applications is enabled by the extensive research on the topic [5], as well as access to large amounts of operational data and the availability of affordable computers with high processing capabilities. Predictive modelling has many applications in the drilling industry. C. Hegde and K. Gray [6] found that a machine learning approach for optimization of drilling parameters by modelling the Rate of Penetration (ROP), the Torque on Bit (TOB) and the Mechanical Specific Energy (MSE) resulted in a 20% increase in ROP and decrease in MSE and TOB by 15% and 7%, respectively. Other studies have been performed on the prediction of fracture gradients [7], bubble-point pressure and formation-volume factor [8] and classifying rock type at a drilling bit [9]. Hence, the

use of machine learning as a tool for optimization and improved decision-making has already proven great potential in the drilling industry. Machine learning technologies such as predictive modelling, classification and anomaly detection is therefore thought to be an essential part of the digitization of the drilling industry.

An artificial neural network model is selected for the machine learning algorithm for this paper. The artificial neural network is built as a system of interconnected processing units that mimic the biological neurons in the human brain [10]. According to R. B Gharbi and G. A. Mansoori, artificial neural networks are one of the three main technologies within Artificial Intelligence (AI) in the oil and gas industry together with fuzzy logic and expert systems [5]. For instance, a fuzzy expert system based approach was used for functionality failure risk analysis assessments for subsea pipeline systems [11]. Taking part in these developments within AI will be a necessity for offshore operators in order to stay competitive in the future, especially with the current global focus on digitization in the industry [12]. Smart use of data is in fact one of the top priorities in the oil and gas sector today, according to DNV-GL [12].

1.2 *Industrial challenge*

Drilling rigs consume large quantities of fuel (i.e. diesel) to generate electrical power used by various consumers on the rig. It is important to analyze the variations of fuel consumption in order to understand the impacts of operational and environmental conditions on the MODU. Excessive fuel consumption has large economic and environmental impacts. Hence, to address the aforementioned is a significant challenge and a necessity for companies such as Odfjell Drilling. Although renewable energy sources and alternative sources such as hydrogen may be the solution to reduce emissions in the long term, the focus for this thesis is to utilize existing technology to improve fuel efficiency in the short term. A fishbone diagram of the cause and effects related to poor fuel efficiency is illustrated in Figure 1.1. The figure indicates how rules/policies/procedures, technology, leadership and personnel contributes to the problem of poor fuel efficiency on a MODU. Rules related to emergency preparedness dictate how many diesel generators must run simultaneously in case of an event such as drift-off, loss of a generator or a well control incident. This causes the diesel engines to run at unfavorable load factor where the fuel efficiency is low. Contributing factors could also be insufficient monitoring of

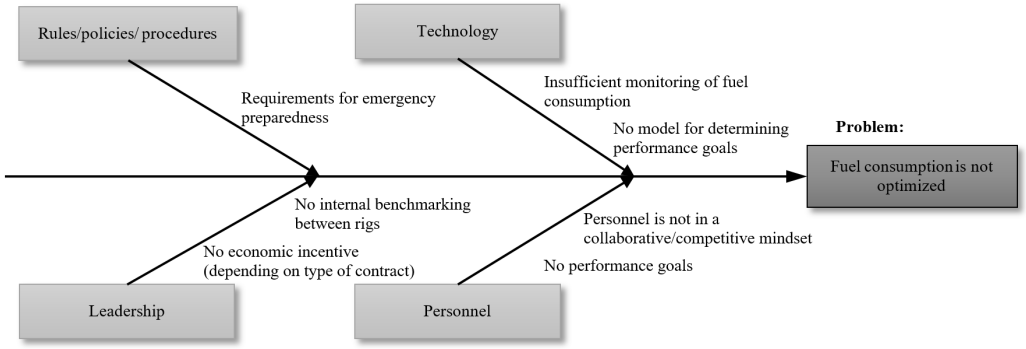


Figure 1.1: Fishbone diagram of the causes and effects related to fuel consumption on a MODU

fuel consumption and lack of tools to evaluate performance.

Currently, as the personnel do not receive performance goals, the fuel efficiency has not been taken into consideration as a priority in an average working day. Financial incentives for reducing fuel consumption is another contributing factor. However, this is highly dependent on the type of contract, i.e. if the fuel expenditures are paid by the client (or the company) hiring the drilling rig. Moreover, internal benchmarking is another tool that has a potential for setting performance goals. Nevertheless, to date, no methods to prevent excessive fuel consumption have been taken into consideration.

1.3 *Performance philosophies*

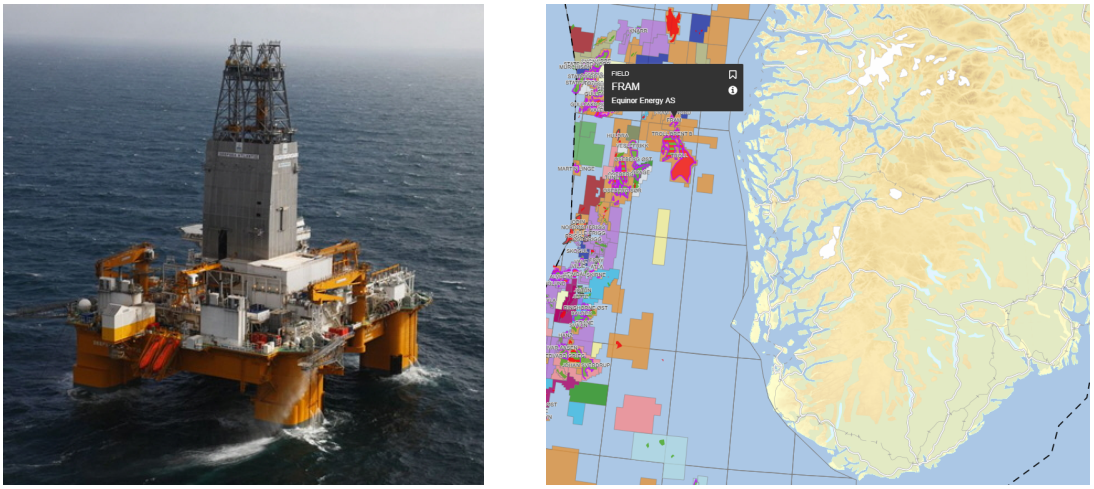
One of the key objectives of predictive modelling is that it provides the ability to take actions based on forecasts. This makes predictive modelling especially relevant for various industrial applications. However, a common challenge regarding fuel management on a MODU is lack of tools to determine whether the fuel consumption is excessive or not. Equinor's "perfect well" approach for making time estimates for drilling and well operations is an example of successful implementation of such a performance tool, or philosophy [13, 14]. The perfect well time is described as "the minimum time in which a well could possibly be drilled" [14] and is calculated from historical data on similar wells. This historical data provides the shortest time recorded for each sub-operation, and adding each sub-operation together gives the time estimate for the "perfect well" [13]. This is a method for setting goals for the offshore personnel with focus on continuous improvement. The "perfect well" approach contributed to reducing the drilling time for onshore wells in the US from over 50 days to less than 10 days, proving that setting the offshore personnel in a collaborative and competitive mindset is useful

for the efficiency in drilling operations [14].

Another performance philosophy in the drilling industry is ”Drilling the Limit”, which is a Shell trademark [15]. This philosophy measures performance against a theoretical perfect limit, which develops a pursuit of operational excellence. Case studies with the implementation of ”Drilling the Limit” results in an enthusiastic team spirit and change in culture, significant increase in performance and improved well delivery [15]. The rig personnel reported that they enjoyed the thrill of success and the peer competition between rigs [14].

1.4 *Odfjell Drilling and Deepsea Atlantic*

Odfjell Drilling is an international drilling, well service and engineering company which was founded in 1974. The company which owns and operates a fleet of semi-submersible drilling rigs and drill ships, and has extensive experience with operating and manning fixed and mobile installations [16]. The drilling rig Deepsea Atlantic (DSA) has been part of the Odfjell Drilling fleet since 2009 [16]. It is a harsh environment semi-submersible drilling unit (illustrated in Figure 2(a)) designed for operating in water depths up to 3000 m. For station keeping during drilling, the rig uses an anchoring system and/or a dynamic positioning (DP) system. The anchoring system facilitates mooring in 70-500 m



(a) Deepwater semi-submersible drilling rig Deepsea Atlantic

(b) Location of the Fram field 20 km from the Troll field

Figure 1.2: Illustration and location of Deepsea Atlantic

depth. DSA also has a dual derrick to facilitate simultaneous operations [17]. DSA is currently on a contract for Equinor Energy [18], drilling three multilateral wells in the Fram field in the North Sea starting from January 2019 [19].

1.5 *Problem statement*

The topic of this thesis was suggested by the external supervisor from Odfjell Drilling since fuel efficiency is of great interest to the company for both economic and environmental purposes. Combining the topic of fuel consumption with machine learning is especially interesting due to extensive developments within AI and machine learning in the recent years and the overall focus on digitization in the drilling industry. The objective of this thesis is to investigate the current status of fuel consumption on the semi-submersible drilling rig DSA, and to use a machine learning approach to predict short-term fuel consumption on the MODU. Predictions are based on operational, positional and environmental factors' variations (i.e. input to the machine learning model). The developed machine learning model is proposed as a tool for improved decision-making and for setting fuel consumption related performance goals for offshore personnel on the MODU.

1.6 *Outline*

The thesis is structured as follows. Chapter 2 contains a brief overview of the different types of machine learning algorithms. This chapter also contains guidelines regarding how to choose the right model for specific machine learning problems. In Chapter 3, the methodology of the thesis is explained. This includes both literature review for relevant theory and previous research as well as the methods for data analytics that are used for developing the machine learning algorithm. Methodology regarding case study research is also included in this chapter. Results from fuel and power consumption analysis and the machine learning model are presented in Chapter 4 and discussed in Chapter 5. The use of predictive modelling to set fuel related performance goals is also presented in these chapters. Lastly, the conclusions and recommendations for further research on the topic of predictive modelling of fuel consumption are given in Chapter 6. The appendix contains relevant documents, such as Python scripts, schematics and technical specification sheets to support the thesis.

2. Theory

This chapter explains the basic theory behind machine learning and the most common types of machine learning models. The basic principles of time series forecasting will also be explained, as well as the most common methods for measuring performance of forecasts.

2.1 *Machine learning models*

There are many definitions of machine learning, and one is proposed by Tom Mitchell by explaining the well-posed learning problem [20]. A computer program is said to learn from experience E with respect to some task T and some performance measure P, if its performance on T, as measured by P, improves with experience E. Machine learning algorithms are commonly divided into supervised learning and unsupervised learning depending on the type of problem and data set [21]. Supervised learning algorithms learn from pairs of inputs and outputs. The algorithm is then able to make predictions for outputs corresponding to inputs the model has not seen before. Unsupervised learning, on the other hand, only knows the inputs of the problem and must extract knowledge from this data without knowing any previous outputs.

Machine learning models are often categorized as classification, regression or clustering problems [21]. Classification problems are characterized as problems with categorical solutions, such as the binary ”True” or ”False”, ”1” or ”0” or non-binary discrete solutions such as the classification of animals within a certain number of species. There is a discrete-valued output, meaning that the output y can only take on a small number of discrete values. A regression problem is where a continuous output value is predicted from a number of features, or input variables. This means that classification and regression problems are easily distinguished by evaluating whether there is continuity in the output. Regression and classification are supervised learning problems where a data set is given and it is known what the correct output should look like for the training data. This also means that there is feedback to the model based on the prediction results. Problems where data needs to be organized to find specific patterns are clustering problems. Clustering is an unsupervised learning problem, where the model learns by itself to find structure in data without necessarily knowing the correct output. In conclusion, the supervised learning models are predictive and unsupervised models are explana-

tory [22]. Another category of unsupervised learning is dimensionality reduction which finds new ways to represent the essentials of many features into fewer features [21]. The various supervised and unsupervised machine learning models and their applications are further described in the following section.

2.1.1 *Overview of supervised learning algorithms*

The goal of a supervised learning problem is to learn a function h: X $\rightarrow$ y where X is the input feature and y is the estimated output value. The hypothesis h(x) shall be a good predictor of the target variable (see Figure 2.1). Choosing how to represent the hypothesis is an important part of developing a supervised learning algorithm, and this is illustrated in Figure 2.2 [23]. Depending on the type of problem and number of input features, the hypothesis may be represented as a linear function or a polynomial function with multiple degrees. It is important to avoid using a suitable hypothesis to prevent overfitting (too complex model) or underfitting (too simple model) which could result in poor performance on the validation data [23].

As previously mentioned, supervised learning algorithms are used for either regression or classification problems depending on whether the desired output is continuous or finite. Table 2.1 presents the the most common supervised learning algorithms and an overview of which inputs and outputs these models can work with. The contents of this table is based on descriptions by A. C. Müller and S. Guido [21]. In addition to those methods mentioned in the table below, there are also ensembles of machine learning models where different models are combined to take advantage of the strengths of each model [21]. Random forests and gradient boosted regression trees are examples of such ensembles.

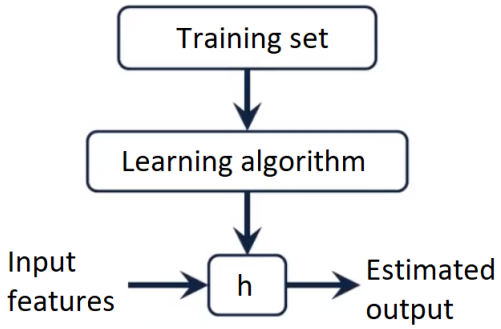


Figure 2.1: The role of hypothesis, h, in a learning algorithm

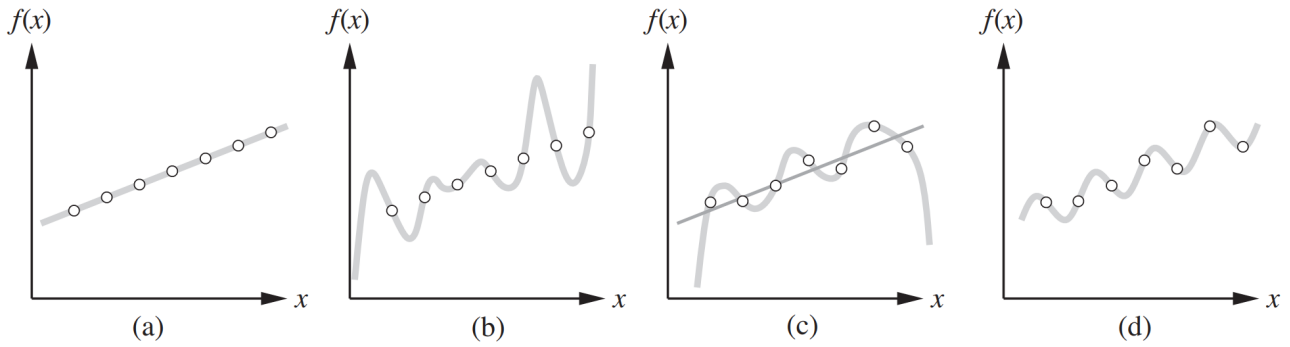


Figure 2.2: Finding the best hypothesis for two different data sets: (a) A good fit with linear hypothesis. (b) Overfitting with a 7 degree polynomial. (c) Good fit with 6 degree polynomial and underfitting with linear hypothesis. (d) A good sinusoidal fit.

Table 2.1: Description of supervised learning algorithms

Model	Category	Description	Input	Output
Linear regression	Regression	Makes predictions with a linear function of input variables	One or multiple features	Continuous
Artificial neural networks	Regression or classification	Learning process by comparing output values to desired values, improved performance over time	One or multiple features	Continuous (regression) or discrete (classification)
k-Nearest neighbor	Regression or classification	Predictions using one or multiple nearest neighbors close to the new input in the data set	One or multiple features	Continuous (regression) or discrete binary/ multiclass (classification)
Decision tree	Regression or classification	Regression model is fitted to the target variable using each of the independent variables. Classification by a hierarchy of logical if-then conditions	One or multiple features	Continuous (regression) or discrete binary/ multiclass (classification)
Support vector regression [24]	Regression	Data correlation through linear mapping	One or multiple features	Continuous
Logistic regression	Classification	Decision boundaries found by linear models	One or multiple features	Discrete binary or multiclass
Linear support vector machine	Classification	Decision boundaries found by linear models	One or multiple features	Discrete binary

Table 2.1 continued from previous page

Model	Category	Description	Input	Output
One-vs.-rest approach	Classification	Extends binary classification models to multiclass output	One or multiple features	Discrete multiclass
Naive Bayes	Classification	Probabilistic classifier	One or multiple features	Discrete binary or multiclass
Kernelized support vector machines	Classification	Non-linear decision boundary	One or multiple features	Discrete binary or multiclass

Each of the methods described in the table above have their strengths and weaknesses. For instance, decision trees have severe limitations in making predictions outside the range of the training data (i.e. extrapolating data) [21]. Nearest neighbors is a good approach for small data sets, whereas linear models and neural networks perform well with large data sets. Supervised learning algorithms often have limitations regarding dimensionality of the data, meaning the number of input features in the data set. Dimensionality should therefore be evaluated when selecting an appropriate supervised learning method for a particular problem. For instance, the k-Nearest neighbor algorithm performs poorly when there are more than a few hundred input features in the data set. Linear models have the ability to handle a large number of input features, and the linear classification models such as logistic regression and linear support vector machine (SVM) have restrictions in low-dimensional spaces. This is because the linear models can only separate points by a straight line. The same issue is present for linear regression methods.

In addition to the dimensionality of the data set, there could also be issues related to the contents of the input features. The term ”sparse data set” is used when most input features are 0. Sparse data causes issues for the k-Nearest neighbor algorithm, however, this causes no problem for linear models. Similarly to linear models, the Naive Bayes algorithm is preferred when handling data sets in high-dimensional spaces and could even be faster to train than linear models. Gaussian Naive Bayes is a variant of Naive Bayes that is often preferred for high dimensional data, whereas the variants multinomial and Bernoulli Naive Bayes are typically used with sparse data sets. Tree-based models are preferred with low-dimensional non-sparse data. The Kernelized SVM is an algorithm where flexibility is increased by adding non-linear features to the linear models for classification. This means that the Kernelized SVMs perform better than linear models in low-dimensional spaces.

2.1.2 *Overview of unsupervised learning algorithms*

Unsupervised learning algorithms differ from supervised algorithms because they have no known outputs [21]. This family of machine learning algorithms is often applied to clustering problems, meaning that different parts of a data set is grouped into clusters of similar data points. Unsupervised learning is also used for transformation of a data set where the algorithm presents the data in a way that is more easily understood. This is for instance dimensionality reduction where the number of features in a data set is reduced to only those features that best describe the problem. Various unsupervised learning algorithms are presented in Table 2.2.

Table 2.2: Description of unsupervised learning algorithms

Model	Category	Description	Input	Output
k-Means clustering	Clustering	Finds cluster centers and assigns points to these centers by feature similarity	Input data with features	Cluster membership
DBSCAN	Clustering	Identifies dense regions as clusters	Input data with features	Cluster membership
Agglomerative clustering	Clustering	Iteratively joining the two closest clusters	Input data with features	Cluster membership
Principal Component Analysis	Transformation	Dimensionality reduction by dropping certain principal components	Input data with features	Transformed data with reduced dimension

2.1.3 *Selecting the right machine learning model*

The Scikit-learn documentation provides a map of the different estimators that can be used for supervised and unsupervised learning [25]. This flowchart gives a guidance of which estimator, or machine learning model, could be used depending on the type of problem and data set. Figure 2.3 is the complete flowchart from the Scikit-learn documentation. This flowchart does not provide a definite answer to which machine learning model that will give the best results for the learning problem. However, it gives an indication to which estimators to try on the data set.

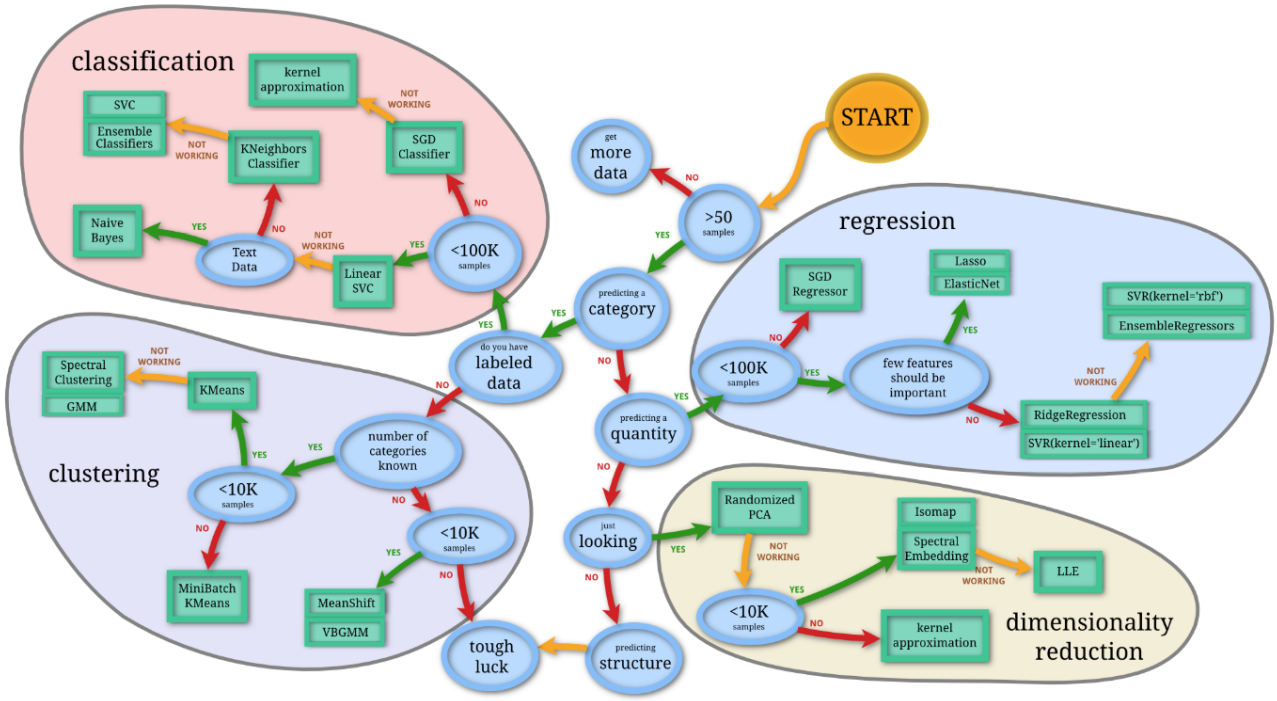


Figure 2.3: Machine learning map

2.2 *Artificial neural networks and the multi-layer perceptron*

2.2.1 *Architecture of artificial neural networks*

A neural network is built as a system of interconnected processing units which mimic the biological neurons in the human brain [26]. The processing units are called neurons, or nodes, and are built into the model in input, output and hidden layers. An input layer communicates with the external environment [27], meaning that this layer receives the input variables imported into the model. Similarly, the output layer communicates the pattern learned by the model into the external environment. Between the input layer and the output layer is one or multiple hidden layers. Each neuron the in the hidden layers receives an input and determines an appropriate output value based on an activation function. A widely used type of ANN is the feed forward neural network. A feed forward neural network consists of an input layer, one or multiple hidden layers and an output layer [26], as illustrated in Figure 2.4.

Selecting a suitable number of hidden layers and the number of neurons in each hidden layer is important when building the neural network architecture. These are in fact the most important features

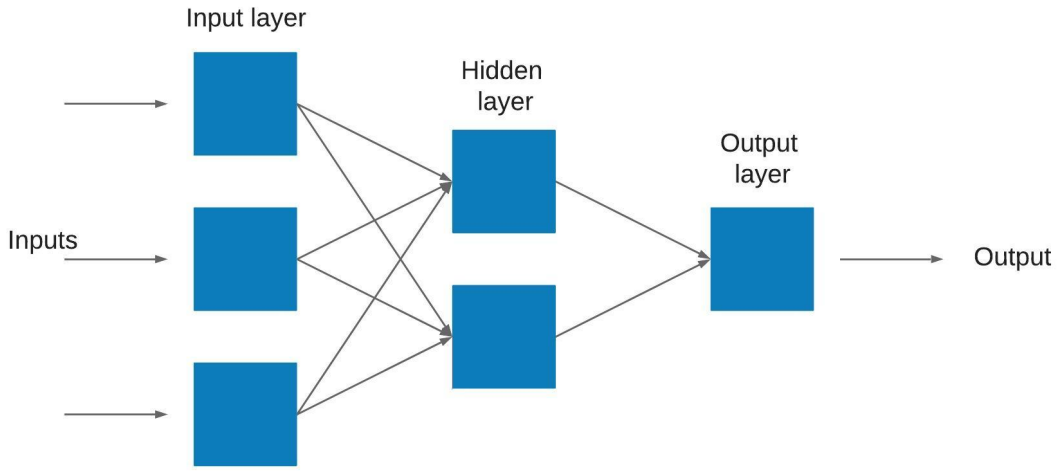


Figure 2.4: Feed forward neural network

of the model. A good starting point is to use one or two hidden layers. The number of neurons in each hidden layer could often be the same as the number of input features [21], or around 2/3 of the size of the input layer [27]. Underfitting could occur if the number of hidden layers and neurons is too low for a complex problem. Too many neurons or hidden layers, on the other hand, could result in overfitting the problem [27].

2.2.2 *Multi-layer perceptron*

The Multi-Layer Perceptron (MLP) model is a type of feed forward artificial neural network used for both classification and regression probems [21]. It can be seen as an extension of linear regression, and is useful when predicting target values from one or multiple input features. The algorithm learns a function from a set of features X = x_1, x_2, ..., x_m and a target y [28]. The MLP model contains an input layer, an output layer and one or more hidden layers in between. Neurons are connected by coefficients, also referred to as weights. There are weights between each input and hidden unit, and between each hidden unit and the output. Learning is achieved by computing a series of weighted sums and run the result through an activation function, which will be explained in the next section. Figure 2.5 is an example of an MLP with four features in the input layer, three neurons in the hidden layer and a single output. The connection weights between the input x and the hidden layer h are denoted as w[0,0], w[0,1] and so on. Similarly, v is the notation for the weights between the hidden layer and the output [21].

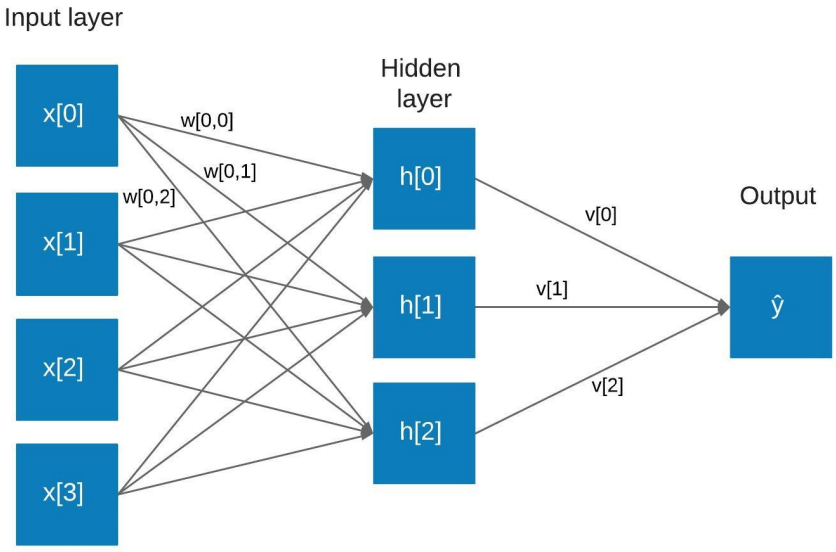


Figure 2.5: Neural network with connection weights

2.2.3 *Activation function*

An activation function is applied to the weighted sum for each of the hidden units. Sigmoid, tanh and Rectified Linear Unit (ReLU) are three common activation functions for ANNs [21]. These are non-linear functions, and can be seen in Figure 2.6 [22]. Expressed mathematically, the sigmoid function returns f(x)=1/(1+exp(-x)). This functions gives an output between 0 and 1. The tanh function, also known as tangens hyperbolicus, returns f(x)=tanh(x) and the output ranges from -1 to 1. The ReLU function sets the output to 0 until the weighted average reaches zero. After this threshold, f(x) is a linear function. The ReLU function is expressed mathematically as f(x) = max(0,x). Equations 2.1, 2.2 and 2.3 illustrate how the ReLU activation function is used to calculate h[0], h[1] and h[2] for the MLP hidden neurons in Figure 2.5.

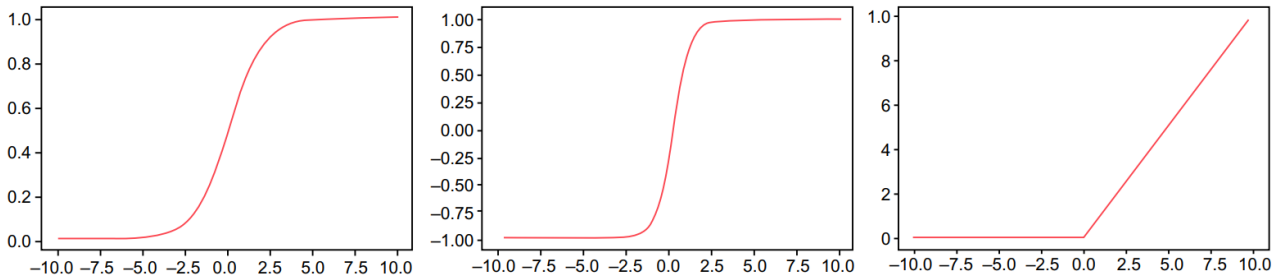


Figure 2.6: Activation functions: Sigmoid (left), tanh (center) and ReLU (right)

$$h[0] = ReLU(w[0,0] \cdot x[0] + w[1,0] \cdot x[1] + w[2,0] \cdot x[2] + w[3,0] \cdot x[3] + b[0]) \tag{2.1}$$

$$h[1] = ReLU(w[0,1] \cdot x[0] + w[1,1] \cdot x[1] + w[2,1] \cdot x[2] + w[3,1] \cdot x[3] + b[1]) \tag{2.2}$$

$$h[2] = ReLU(w[0,2] \cdot x[0] + w[1,2] \cdot x[1] + w[2,2] \cdot x[2] + w[3,2] \cdot x[3] + b[2]) \tag{2.3}$$

where w is the weight, x is the value for the input feature and b is the intercept. The predicted output, $\hat{y}$, is then calculated by Equation 2.4:

$$\hat{y} = v[0] \cdot h[0] + v[1] \cdot h[1] + v[2] \cdot h[2] + b \tag{2.4}$$

2.2.4 *Learning and weight optimization*

Connection weights are adjusted by comparing the expected output to the actual output from each neuron. Error between expected and actual output is evaluated by a loss function. The MLP regressor uses the Square Error loss function [28], written as:

$$Loss(\hat{y}, y, W) = \frac{1}{2}|\hat{y} - y|^2 + \frac{\alpha}{2}|W|^2 \tag{2.5}$$

where $\hat{y}$ is the predicted value, y is the actual value and W is the connection weight. $\frac{\alpha}{2}|W|^2$ is an L2-regularization term which is added to the loss function to prevent overfitting. This is done by shrinking weights with large values. The regularization term contains an α value which is a parameter that controls how large the penalty, or shrinking, should be for the regularization term [28].

Minimizing the loss function increases model accuracy, and this is done by optimizing weights between neurons. After the loss function in Equation 2.5 is calculated, backpropagation is used to pass the updated weight back to the previous layers. The change in weights is determined from gradient descent by calculation the partial derivative of the loss function to see how parameters should be changed

to minimize the loss. The change in weights is calculated from the following equation:

$$W^{(i+1)} = W^i - \varepsilon \nabla Loss^i{}_W \tag{2.6}$$

where i is the iteration step and ε is the learning rate, which is the step size for gradient descent. In this way, the weights are updated repeatedly until the algorithm has reached a set number of iterations, or if the improvement in loss from one iteration to the next is below a set value. Weight optimization is done by implementing a learning algorithm, and two of the recommended learning algorithms for MLPs are Adam and SGD. These solvers determine how the model will learn the parameters of the model [21]. Both solvers are stochastic optimizers. The Adam solver is developed by Jimmy Ba et al., and is suitable for relatively large data sets [29]. Weight optimization by SGD supports adaptive learning rates where the learning rate is reduced when the improvement in training loss is below a set value [30].

2.3 *Performance evaluation*

There are numerous methods for measuring the performance of a predictive model. A common method is the Mean Square Error (MSE), which is a measure of the average squared difference between real values and the predicted values. MSE is calculated by the following equation [31]:

$$MSE = \frac{1}{n}\sum_{i=1}^{n}(y_i - \hat{y}_i)^2 \tag{2.7}$$

where n is the number of training sets. MSE close to zero will indicate good performance for the forecasting model. Root Mean Square Error (RMSE) is another widely used method of evaluating performance of a model. RMSE is the root of MSE, and is calculated from Equation 2.8. Lastly, the Mean Absolute Error (MAE) is the root of the average difference between real and predicted values, as described in Equation 2.9.

$$RMSE = \sqrt{\frac{1}{n}\sum_{i=1}^{n}(y_i - \hat{y}_i)^2} \tag{2.8}$$

$$MAE = \sqrt{\frac{1}{n}\sum_{i=1}^{n}(|y_i - \hat{y}_i|)} \tag{2.9}$$

All these methods summarize the performance with disregard of whether the model prediction over-shoots or under-shoots the actual value.

2.4 *Time series forecasting*

Time series analysis is an important part of machine learning, and is a useful tool for looking into the future of a given data set. A time series is a data set with a time component, and all data is time-dependent and observed sequentially over time [32]. Forecasting is when past behavior is used to predict an unseen future behavior [33]. The term time series forecasting is used when a time series of past observations of a variable is extrapolated into the future [34]. Only systematic components like trend and seasonality of a time series are predictable [22]. Time series forecasting can be divided into decomposition based methods, smoothing based methods, regression based methods and machine learning methods [22].

There are many reasons why it is interesting to study time series of data. C. Chatfield [32] describes the main objectives of time series forecasting as description, modelling, forecasting and control. Description is to use statistics or graphical models such as time plots to understand the behavior of the time series. Modelling utilizes statistical models to describe the behavior of the time series, and is used for both univariate and multivariate time series. Univariate forecasting is where forecasts of a single variable is only based on past observations of this variable. Multivariate forecasting predicts future behavior of a time series based on one or more series, or predictors, that the predicted variable is dependent on. Forecasting is to estimate, i.e. to predict, the future development of a time series. This is the main objective for time series analysis this thesis. Forecasting is often performed in steady-state conditions where the future trends are considered similar to the past trends. Another way of forecasting is the ”what if”-principle where variables of a multivariate model are changed to predict the effect of a never-before seen scenario. The last objective is control, which is strongly linked to forecasting of time series. Control means that is it possible to take actions based on a predicted forecast of a time series, which makes time series analysis especially relevant for various industrial applications.

3. Methodology

Literature review, case study research and data analysis are the three methodologies used in this thesis. Firstly, relevant literature in the form of research papers and books regarding data analysis and machine learning has been reviewed. A case study has then been developed with the use of data analytics to present a machine learning model for fuel consumption.

3.1 *Literature review*

One of the methodology approaches for this thesis is literature review. ScienceDirect and Oria is used to find relevant literature. When performing literature searches, the ”Abstract, title, keyword”-feature is mostly used in order to obtain relevant literature for each topic. Search words such as ”predictive algorithms”, ”machine learning” and ”fuel consumption” are particularly useful, combined with other search words to narrow down the number of hits. In addition to scientific publications, a number of websites are also used in order to obtain the required information for this paper.

Books from the library at University of Stavanger are also used in this paper. These books are mainly used for the theory chapter, and include the books ”Artificial Intelligence: A Modern Approach” by S. Russell and P. Norvig, ”Python for Data Analysis” by W. McKinney and ”An Introduction to Machine Learning with Python” by A. C. Müller and S. Guido.

3.2 *Case study research methodology*

A mixed approach of case study and action research has been used as the research methodology for this thesis. The machine learning based approach has been used to perform multi-criteria analysis (i.e. by taking environmental and operational variables as the input) for predicting fuel consumption.

A case study is a research method which investigates a contemporary phenomenon within its real-life context [35]. Conducting a case study for research purposes is a useful strategy when posing “how” or “why” questions. The present thesis poses the question of how to model predictions of fuel consumption based on why fuel consumption for a MODU is not optimized. A case study is therefore

considered as a suitable approach for this purpose. The case study is conducted with the five steps of the action research cycle [36]: (1) identification of the problem, (2) collection and structuring of data, (3) interpretation of data, (4) actions based on data, and (5) reflection.

3.3 *Data analysis*

The machine learning algorithm in this thesis is developed by using the Python language and Jupyter Notebook in the Anaconda environment. The Python scripts used for data pre-processing and analysis are presented in Appendix B. Python is a popular and useful tool for data analysis for scientific computing purposes [37]. NumPy, pandas, scikit-learn, matplotlib and DataReservoir.io packages are imported for the purpose of data cleaning, structuring, analysis, visualization and importing operational modes, positional and weather data from a DataReservoir.

NumPy is a package for scientific applications, and is short for for Numerical Python. It has good capabilities for processing multidimensional arrays, and has a collection of mathematical functions. The pandas library is useful when it comes to working with data sets from Excel and CSV files. Pandas supports manipulation, reading and writing of these files, and is therefore useful for machine learning applications [38]. The pandas library also has great graphing capabilities, for example with the use of the DataFrame.hist feature. Scikit-learn is a tool used for data mining and data analysis. It contains various features for classification, regression, clustering, dimensionality reduction, model selecting an pre-processing for machine learning purposes [39]. Plots and 2D visualizations are most commonly produced by using the matplotlib library.

3.3.1 *Fuel calculations*

Fuel consumption is usually estimated based on the specific fuel consumption given by engine type, rated engine power and engine load [40]. Fuel consumption on DSA not measured directly on DSA, and must therefore be calculated from the sum of the power output from the diesel generators in the diesel-electric power plant located in each quadrant. The engine output for 100 % load of the Wärtsilä marine main engines on DSA is 5760 kW according to the technical data sheet (see Appendix C. There is a 96 % efficiency between the diesel engine and the generator. There is also a 2 %

loss between the generator output and the point where power is measured. Figure 3.1 illustrates the efficiency for the diesel engine and generator set. A total loss of $0.96 \cdot 0.98 = 0.9408$ must be taken into the fuel calculations. Power output from each generator is first converted to engine load by dividing the power output from each generator by the rated engine power (5760 kW), and accounting for the efficiency coefficients:

$$k_0 = \frac{P}{5760kW \cdot 0.96 \cdot 0.98} \tag{3.1}$$

where k_0 is engine load (ranging from 0 to 1, i.e. 0 to 100%) and P is the generator power output. The next step is to determine specific fuel consumption in g/kWh based on engine load. Figure 3.2 illustrates the specific fuel consumption per engine load for the marine main engines. This graph is created by curve fitting using a 2^{nd} degree polynomial on given fuel consumption for 25 %, 50 %, 75 %, 85 % and 100 % engine load in the Wärtsilä technical data sheet (see Appendix C). The resulting polynomial is:

$$s_f = 134,22{k_0}^2 - 224,44k_0 + 270,24 \tag{3.2}$$

where s_f is the specific fuel consumption with unit g/kWh. The fuel consumption is then calculated by Equation 3.3 below where q is fuel consumption with unit m^3/h and ρ is the density of marine diesel oil which is given as 845 g/l.

$$q = \frac{s_f \cdot 5760kW \cdot k_0}{\rho \cdot 1000} \tag{3.3}$$

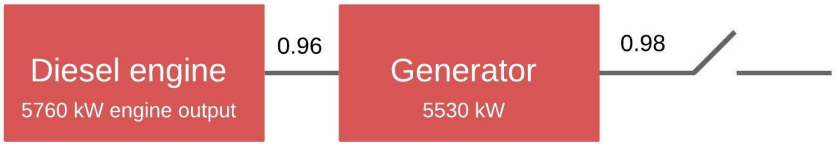


Figure 3.1: Efficiency of diesel engine and generator

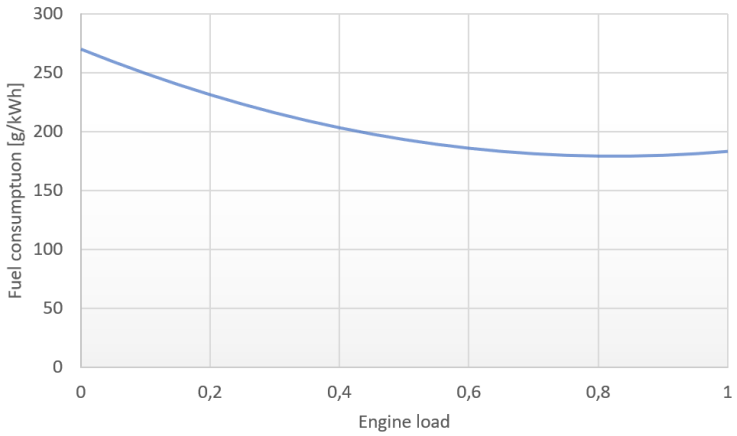


Figure 3.2: Fuel consumption per engine load factor (in decimal numbers)

3.3.2 *Data collection and pre-processing*

Operational and environmental data is collected from the 4Subsea DataReservoir, which is a data platform for structuring and storage of time series data. The DateReservoir is accessed through Python and Jupyter Notebook in the Anaconda environment by importing the ”datareservoirio” package as mentioned in the previous section. Relevant input features for the machine learning model are collected from the DataReservoir as well as necessary data for fuel calculations. Hourly fuel consumption is the target value for the machine learning model, and will be calculated based on measured power output from the diesel generators as described in section 3.3.1. Table 3.1 is a complete list of the target value and input features.

Table 3.1: Target value and input features for the machine learning model

Variable	Unit	Collected from:
Fuel consumption	m3/h	Calculated/DataReservoir
Datetime (UNIX)	-	DataReservoir
Wind speed	m/s	DataReservoir
Wind direction	rad	DataReservoir
Current direction	rad	DataReservoir
Current speed	m/s	DataReservoir
Depth in well	m	Daily Drilling Log
Draught	m	DataReservoir
Latitude	rad	DataReservoir
Longitude	rad	DataReservoir

Table 3.1 continued from previous page

Variable	Unit	Collected from:
Hour of day	-	Python
Day of year	-	Python
Ops. mode 1 Rig up og tear down	-	Daily Drilling Log
Ops. mode 2 Drill actual	-	Daily Drilling Log
Ops. mode 3 Reaming	-	Daily Drilling Log
Ops. mode 5 Condition mud and circulate	-	Daily Drilling Log
Ops. mode 6 Tripping	-	Daily Drilling Log
Ops. mode 7 Planned maintenance	-	Daily Drilling Log
Ops. mode 8 Repair rig	-	Daily Drilling Log
Ops. mode 11 Wire line operations	-	Daily Drilling Log
Ops. mode 12 Run and pull casing/liner	-	Daily Drilling Log
Ops. mode 13 Cement operations	-	Daily Drilling Log
Ops. mode 14 Nipple BOP	-	Daily Drilling Log
Ops. mode 15 Test BOP	-	Daily Drilling Log
Ops. mode 19 Fishing	-	Daily Drilling Log
Ops. mode 21 Stuck pipe	-	Daily Drilling Log
Ops. mode 23 Waiting on weather	-	Daily Drilling Log
Ops. mode 24 Marine operations/skid rig	-	Daily Drilling Log
Ops. mode 25 Additional	-	Daily Drilling Log
Ops. mode 26 XMT	-	Daily Drilling Log
Ops. mode 27 Workover riser	-	Daily Drilling Log
Ops. mode 31 Tubing	-	Daily Drilling Log
Ops. mode 32 Not in use	-	Daily Drilling Log
Ops. mode 34 Testing	-	Daily Drilling Log
Ops. mode 35 Milling	-	Daily Drilling Log
Ops. mode 38 O & R	-	Daily Drilling Log
Ops. mode 41 Non-productive time	-	Daily Drilling Log
Ops. mode 43 Aux	-	Daily Drilling Log

The input features called ”Ops. mode” in the table above is data that indicates the operational mode of the MODU at all times. Common operational modes are for instance drilling, marine operations, cement operations, tripping etc. Operational modes are listed in Appendix D. Only the main derrick activities are used for this model, and only main operation codes are listed (column named ”Code” in Appendix D) instead of listing each subcode. This is done to reduce the number of input features.

Operational modes are imported from an Excel file from the Daily Drilling Log (see Appendix E). As opposed to the continuous environmental data such as wind speed and current speed, the operation mode is a categorical variable and must be represented in the machine learning model accordingly. One-hot encoding, also known as dummy variables, is a method of representing such categorical variables. Instead of representing the operation mode as a number from 1 to 43, each mode is represented by one column with a binary 1 or 0 indicating if the mode is active or not. Table 3.2 illustrates how one-hot encoding is used to indicate the operational mode over four time steps where the value one means that the operation code is active, and 0 means inactive. The operational mode is not updated continuously, but rather logged manually in time intervals. This causes some inaccuracy in the results. This also applies for the logging of depth in well.

Table 3.2: Example of one-hot encoding of operation modes

	Ops. mode 2	Ops. mode 6	Ops. mode 5
	Drill actual	Tripping	Condition mud & circulate
Time 1	1	0	0
Time 2	1	0	0
Time 3	0	0	1
Time 4	0	1	0

Other input variables such as wind speed, wind direction, draught, longitude and latitude are collected from the DataReservoir. Raw data collected from the DataReservoir is not sampled at a set frequency in the time series. The data set must therefore be resampled in order to obtain a time series with constant frequency between values. This is part of the data cleaning and preparation for data analysis. Resampling is the process of changing the frequency of a time series [37], where frequency can be increased (upsampling) or decreased (downsampling). In the case of this thesis, it is desirable to obtain a time series with a frequency of 1 data point per second. The time series is resampled by the pandas.DataFrame.reindex function combined with forward fill and backfill functions to fill in the empty NaN values of the resampled time series. A simplified diagram of the collection, cleaning and structuring of data as well as loading data into the machine learning model is illustrated in Figure 3.3. After the data collection, cleaning and structuring is performed, the data set is ready for final pre-processing before it is fed into the machine learning model. This step consists of scaling features and splitting the data set into training set and test set. This will be further explained in Section 3.3.4.

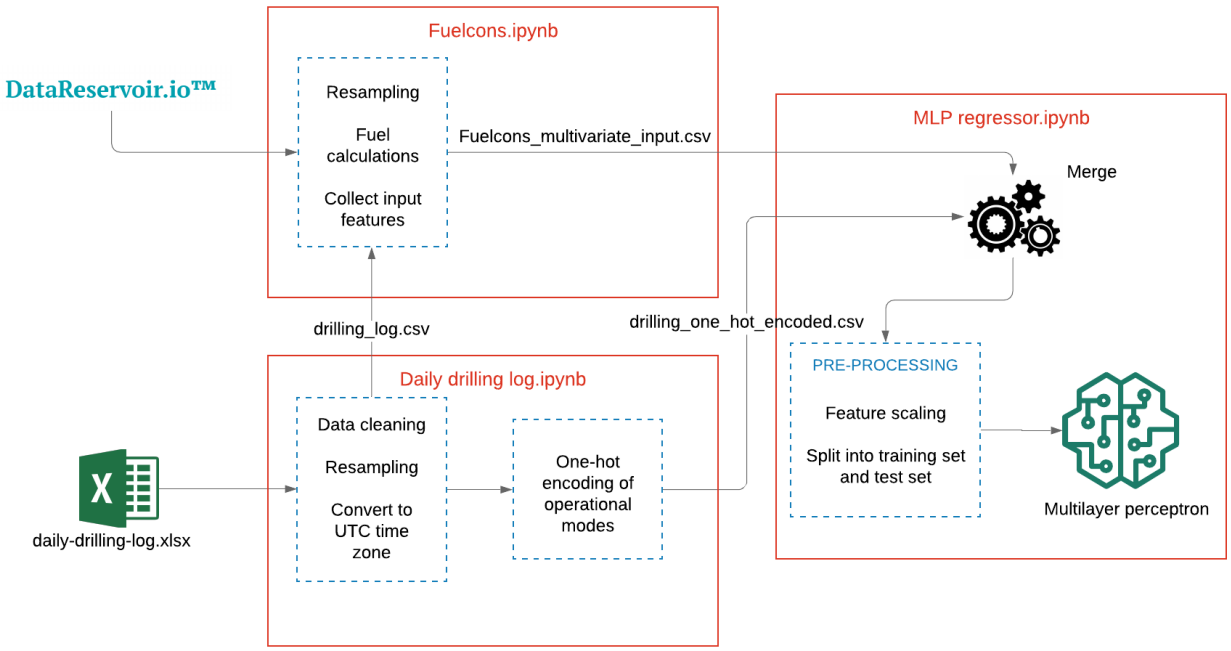


Figure 3.3: Overview of raw data pre-processing and file structure

3.3.3 *Correlation analysis*

Input features for the machine learning model are evaluated in a correlation plot created using the pandas.DataFrame.corr() function, and the default method is Pearson standard correlation coefficient. Correlation analysis is performed to see the relationship between two features on a scale from -1 to 1. A correlation of -1 indicates a perfect negative relationship, and 1 indicates a perfect positive relationship. 0 correlation factor means that there is no linear relationship between the two features. Correlation coefficients are illustrated with examples [41] in Figure 3.4.

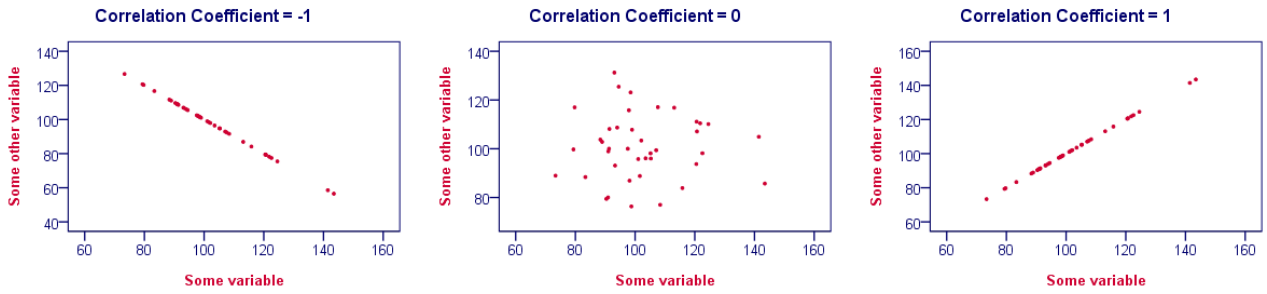


Figure 3.4: Pearson correlations -1, 0 and 1

3.3.4 *Selecting and developing a trained model*

An appropriate algorithm is selected based on descriptions presented in Section 2.1, previous research on the application of fuel consumption related predictive models and the machine learning map in Figure 2.3. Supervised learning is definitively a more suitable approach compared to unsupervised learning, since we are working with labelled data (pairs of known inputs and outputs) to train the model. The model should predict a quantity, not a category, which points to the direction of a regression problem. The number of samples, i.e. training sets, is large (7.7 million training sets), so it is important to select a model which can take on large data sets. By following the map in Figure 2.3, this leads to an indication that a Stochastic Gradient Descent (SGD) regressor could be a good fit. Research papers such as [2] and [3] support the use of neural networks for predictive modelling of fuel consumption. Neural networks have the ability to build complex models for large data sets [21], and is therefore considered a good fit for the fuel consumption model in this thesis. The MLP model is a type of artificial neural network and is a simple algorithm for both classification and regression purposes. SGD based solvers are built into the MLP regressor, so this fits well with the decision from the map in Figure 2.3.

Different architectures and parameters are tested to find the MLP model with highest performance. Performance is measured by the RMSE by comparing predicted value with actual value, as discussed in Section 2.3. This performance evaluation requires the data set to be split into a training set (i.e. 80% of the data set) and a separate test set (i.e. 20% of the data set). Data used to train the model can not be used to measure its success since the model already knows the correct output, so the test set is applied for this purpose [21]. The test set is generated by selecting random training sets from the original data set. The scikit-learn library contains the function sklearn.model_selection.train_test_split() for randomly dividing a data set into training and testing data.

Another pre-processing step is carried out to remove the mean and scaling input variables to unit variance since the MLP regressor is sensitive to feature scaling [28]. Standardization is performed with the sklearn.preprocessing.StandardScaler feature [42] where standard score for each training sample is calculated from the following equation:

$$z = \frac{x - u}{s} \tag{3.4}$$

where x is the training sample, u is the mean value of the sample and s is the standard deviation of the sample. The model is then built using the sklearn.MLPRegressor() with a random state set as 0 to obtain the same results each time the model is run. Relevant parameters for the MLP regressor are; hidden layers sizes, activation function (sigmoid, tanh or ReLU), solver (LFBGS, SGD or Adam), L2 penalty parameter α, learning rate ε, maximum number of iterations, random state and tolerance. After the parameters of the model is determined, the model is fitted to the training data by using the ml_model.fit() function.

4. Analysis

This case study is based on data from operations on DSA in the time period from 25th of January to 25th of April 2019. DSA is located at the Fram field [43] in the northern part of the North Sea in this time period. Station-keeping during this time period is provided by a combination of DP and mooring. The following chapters will present the diesel electric power plant on board DSA and provide an overview of the power and fuel consumption on DSA for this time period, as well as an analysis of how this consumption relates to operational conditions on the MODU.

4.1 *Power consumption on Deepsea Atlantic*

MODUs such as DSA have high power requirements. The various equipment on the rig requires either continuous or periodic power supply from the diesel-electric power system on board the rig. Diesel-electric power systems is the industry standard for supplying energy to vessels with DP systems [44], and is a widely used system for large marine rigs [45]. The diesel-electric system consists of a set of diesel engines which are paired with generators in the power system where mechanical energy is converted into electrical power. This chapter presents an overview of the diesel-electric power system and power distribution on DSA. Configuration modes for the diesel generators in the power plant is also presented.

4.1.1 *Overview of the diesel-electric power plant and distribution system*

The drilling rig DSA is powered by a diesel generator power plant that consists of four quadrants each containing two diesel generators as well as high and low voltage switchboards and sub-distributors (see Appendix F). The diesel-electric power system generates electrical energy which is transmitted to the various rig systems where work is performed through the use of electric motors. This power system enables variable-power operation of equipment on the rig, such as draw-works, mud pumps, thrusters, Heating Ventilation and Air Conditioning (HVAC), and top drive. A diesel-electric power system has many advantages compared to the conventional mechanical drive systems that have been used to operate equipment on drilling rigs in the past [45]. The diesel-electric system allows for

smooth operation of equipment and has fewer issues related to vibrations and shock compared to a mechanical drive system. It also enables the use of a simple and flexible control system. Electrical power on DSA is distributed to five main groups of consumers; thrusters, drilling and distribution to marine, drilling utilities and HVAC services. These groups of consumers are illustrated in Figure 4.1, which is a simplified diagram of the port-forward quadrant on DSA. This quadrant contains two diesel generators that supply power to thrusters 7 and 4, drilling consumers and distribution to marine, drilling utilities and HVAC consumers. The diagram is based on the one-line diagram of DSA in Appendix G. Power is distributed to the thrusters through high voltage 11 kV switchboards. Drilling consumers are supplied through a drilling switchboard in each quadrant, supplying equipment such as mud pumps, draw-works and mooring windlass (referred to as MP, AHDD and MW in the figure below) through a Variable Frequency Drive (VFD). Miscellaneous consumers such as HVAC, drilling utilities and marine services are supplied through low voltage 690 V switchboards. Marine service includes equipment such as ballast pumps, fresh water cooling pumps and fire pumps. Ventilation fans and humidifiers are included in the HVAC service. Cranes, HPU units are examples of equipment found in the drilling utility services (see electrical load analysis in Appendix H). In addition to marine, drilling and HVAC, there is also some power that is distributed to duct heaters and small power consumers through the low voltage switchboards.

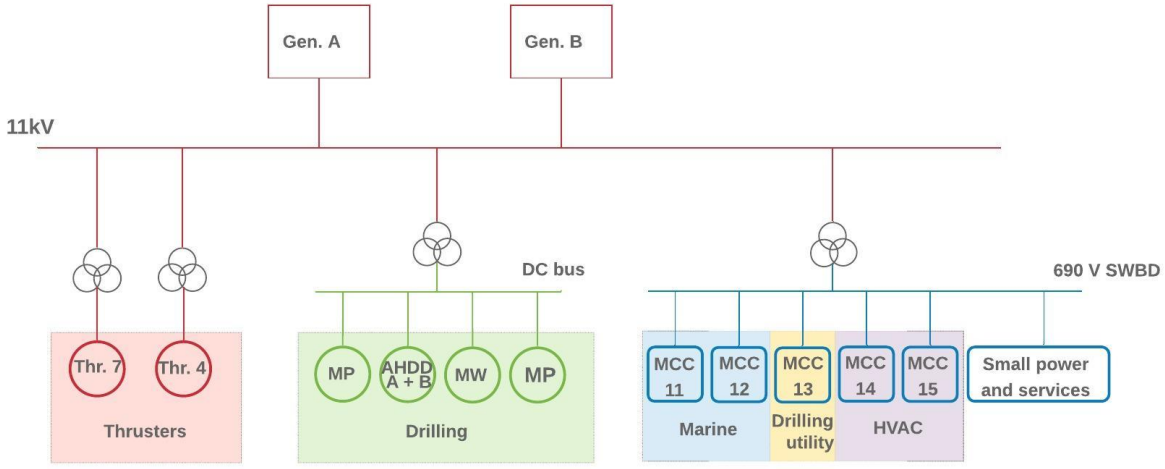


Figure 4.1: Simplified diagram of port-forward quadrant on DSA

4.1.2 *Diesel generator configurations*

The number of generators that are in use at any time is determined by the operational conditions and requirements for emergency preparedness. Favorable conditions require a reduced number of generators online. These conditions are often present during normal drilling operations with constant load on drilling motor and mud pumps, and when draw-works are operating on low power settings [1] in calm weather conditions. Configurations of the generator sets will influence how well generators can operate in terms of fuel efficiency, as well as determining the level of redundancy in the power supply system. Diesel engines for marine applications such as vessels with DP systems will typically have a maximum efficiency at 80 % of the maximum power output of the engine [44]. However, statistics from the DSA fuel prognosis in Appendix I reveals that the average engine load over the one-year period from Q4 in 2017 to Q4 in 2018 is only 39 %. T. Bø et al. [44] found that diesel engines that are used to power vessels with DP systems often deliver between 10-50 % of the rated power, so this is not a unique case. The effectiveness in converting fuel into mechanical energy in the diesel engines on DSA is previously described in Figure 3.2 in Section 3.3.1. The figure confirms that the fuel consumption per engine load increases with decreasing engine load, and has a maximum efficiency at around 80% load.

As previously mentioned, the power plant consists of four quadrants (Port Fwd, Stbd Fwd, Stbd Aft and Port Aft) with a total of 8 diesel engine-generator sets arranged in four engine rooms. One engine-generator set in each quadrant acts as an emergency generator which will automatically start up if an engine fails to start after a black out. Specific configurations of the diesel generators are required in order to maintain redundancy in case of a blackout. The three configurations ”Open ring/No split”, ”2-split” and ”4-split” mode are used depending on the operational conditions (see Appendix J). The No-split mode treats the whole power system as one unit, and is only used when the rig is at yard with power supply from shore.

The most common mode is the 2-split configuration which is used during transit, drilling or testing operations during calm weather conditions, and operation with position mooring. Figure 4.2 indicates how the four high voltage switchboards (HS1, HS2, HS3, HS4) supply power to the thrusters (A to H). In 2-split mode, the high voltage switchboards HS1 and HS2 are interconnected, and the same with HS3 and HS4. In case of failure on one side of the split, this configuration ensures that not more than

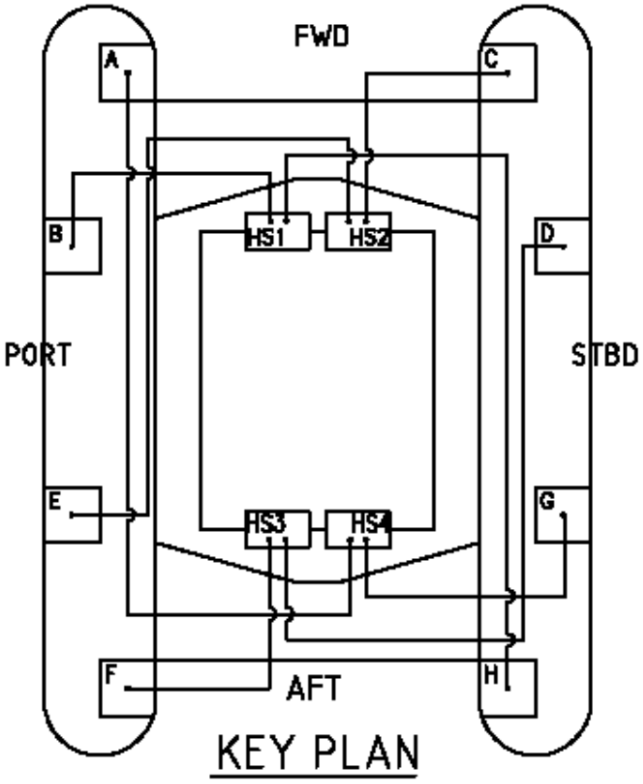


Figure 4.2: Power distribution with thrusters (A to H) and high voltage switchboards (HS1 to HS4)

one thruster in each corner of the rig loses power. An advantage for the 2-split configuration is that it is possible to operate with varying number of generators depending on the current demand. This means either one, two, three or four generators on each side of the split, which facilitates a more efficient and economic use of the generators. There is also a possibility of running a 4-split configuration in the case of demanding conditions that require maximum redundancy. Operational conditions such as drilling and testing in harsh weather conditions, start-up after a blackout and maintenance operations on the high voltage switchboard usually requires a 4-split mode. Each quadrant is operated as an individual system in the 4-split mode, meaning that one or two generators are operating in each of these units depending on the current demand. Loss of one unit is the worst case failure scenario, and the remaining units are then capable of maintaining 75 % power supply to the consumers.

4.2 *Power and fuel consumption analysis*

As described in Section 4.1.1, the power generated by the diesel-electric power plant on DSA is distributed to thrusters, drilling equipment, marine, drilling utilities and HVAC consumers. The share

of average power consumption for each group of consumers at DSA in the time period from 25th of January to 25th of April is presented in Figure 4.3. The electrical power is presented in this plot since it is a more stable parameter than fuel consumption [46] due to the influence of the engine load on the fuel consumption. Electrical power is also easier to measure. It reveals that marine utilities has approximately the same power demand as all other consumers combined. Drilling utility is the second largest power consumer, followed by HVAC systems. The signals from one of the motor control centers related to HVAC24 (see Appendix G) is missing, so this is a source of error.

A correlation matrix for each group of power consumers on DSA is presented in Figure 4.4. The matrix indicates a correlation of 0.527 between measured power from the drilling VFD and drilling utilities. The correlation between marine utilities and thruster VFD is 0.452, and there is also a correlation of -0.446 between marine and HVAC and -0.405 between marine utility and drilling utility. Other correlations are quite low. It is also interesting to see the power consumption in relation to different operational activities. Figure 4.5 illustrates the distribution of average (mean) and peak (maximum) power consumption from drilling consumers for each operational mode. This histogram applies to the previously mentioned time period from January to April 2019. The load will be highly dependent on location, seasonal variations, well and operation specific parameters (see Appendix F).

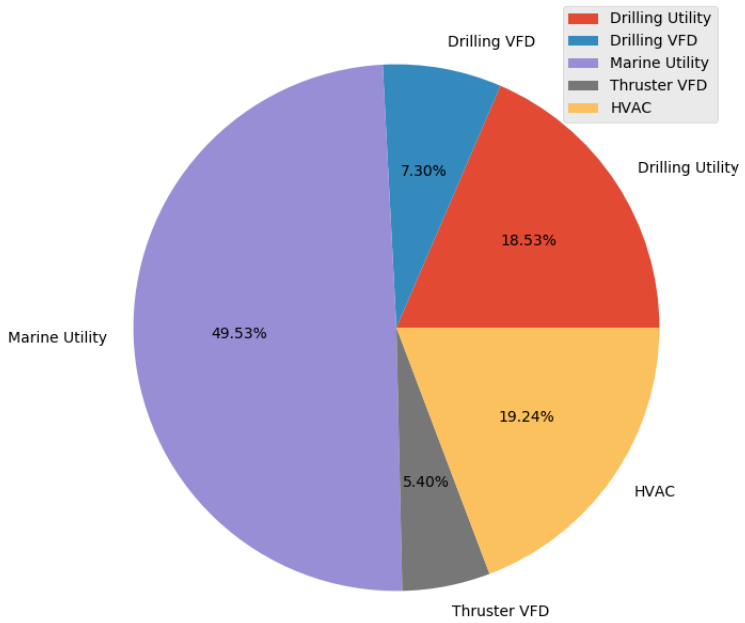


Figure 4.3: Average power consumption for each group of consumers

	Drilling VFD	Thruster VFD	HVAC	Marine	Drilling utility
Drilling VFD	1	0.085	0.200	-0.213	0.527
Thruster VFD	-0.085	1	0.061	0.452	-0.234
HVAC	0.200	0.061	1	-0.446	0.181
Marine	-0.213	0.452	-0.446	1	-0.405
Drilling utility	0.527	-0.234	0.181	-0.405	1

Figure 4.4: Correlation matrix for the five main groups of power consumers

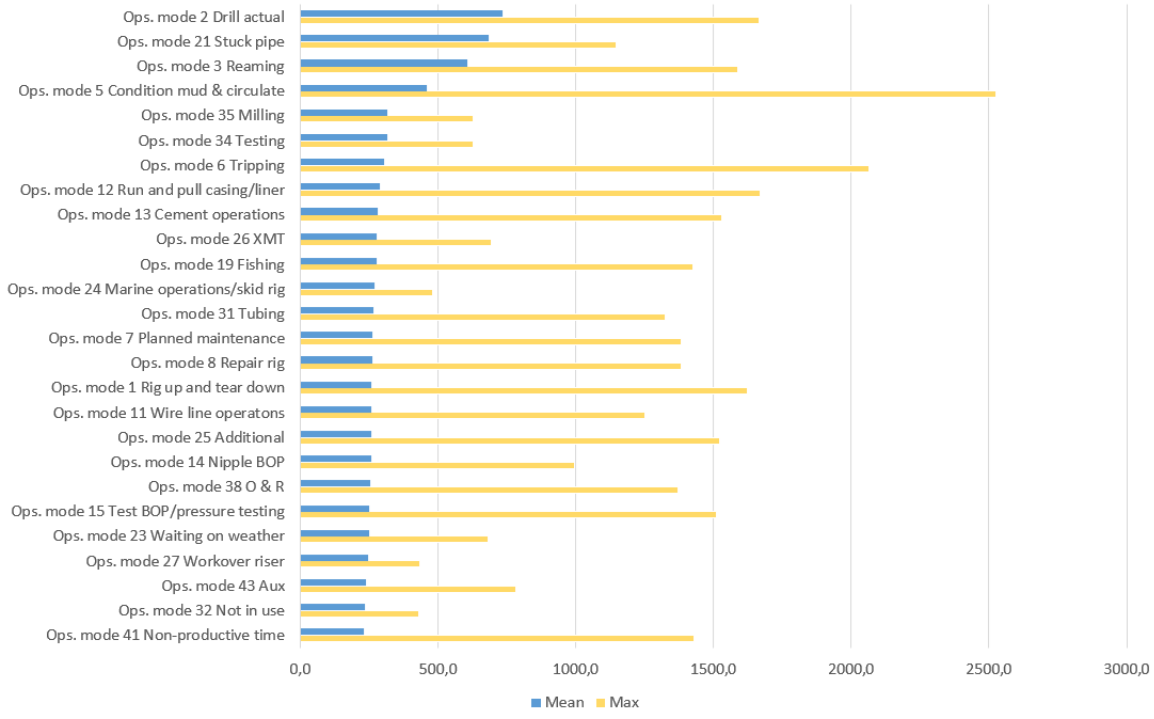


Figure 4.5: Mean and maximum power consumption [kW] for each operational mode

Correlations between power consumption through drilling VFD and the different operational modes are presented in Figure 4.6. This figure indicates that the features with strongest positive relationships with the power consumption are found at operational modes 2, 5 and 3. The strongest negative relationships are found at operational modes 43, 11 and 7.

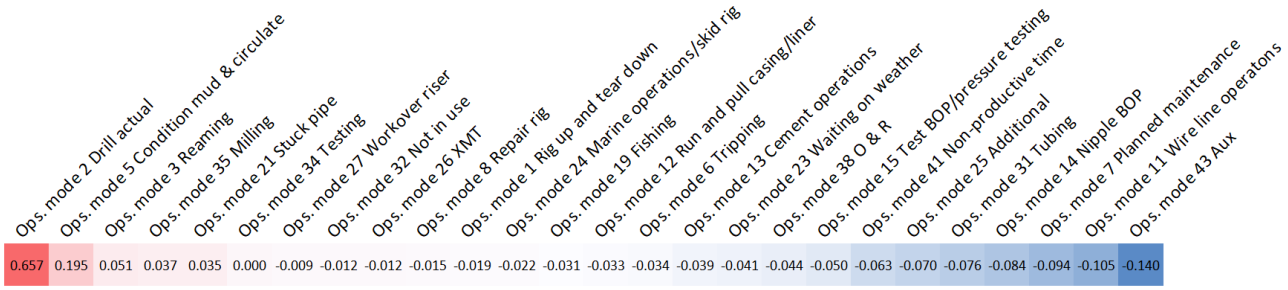


Figure 4.6: Correlation plot of each operation mode with regards to drilling VFD power consumption

4.2.1 *Generated power vs. consumed power*

It is interesting to study the relationship between generated and consumed power in order to get a better understanding of fuel consumption on DSA. The sum of generated power from each diesel generator in kW from th 25th of January to 25th of April 2019 is presented in Figure 4.7 together with the total consumed power (the sum of the five groups of consumers presented in Section 4.1.1) for the same time period. The mean ratio between generated and consumed power for this time period is 0.924, meaning that, on average, 92.4% of generated power reaches the consumers on the MODU. The difference between generated and consumed power is the remaining 7.6% loss. Furthermore, the loss plot reveals that the loss is not constant, but contains frequent peaks. An example of such a peak value is presented in Figure 4.8. The example takes place on the 4th of February 2019 at 17:05 UTC, and the operational activity on DSA is pulling tubing at approximately 907 m depth (see Appendix E). As seen in Figure 4.8(a), the generated power peaks in four intervals over a time period of 30 minutes. The total power consumption has the same variations but with smaller peaks, meaning that the difference between consumed and generated power peaks at these intervals. By looking at the

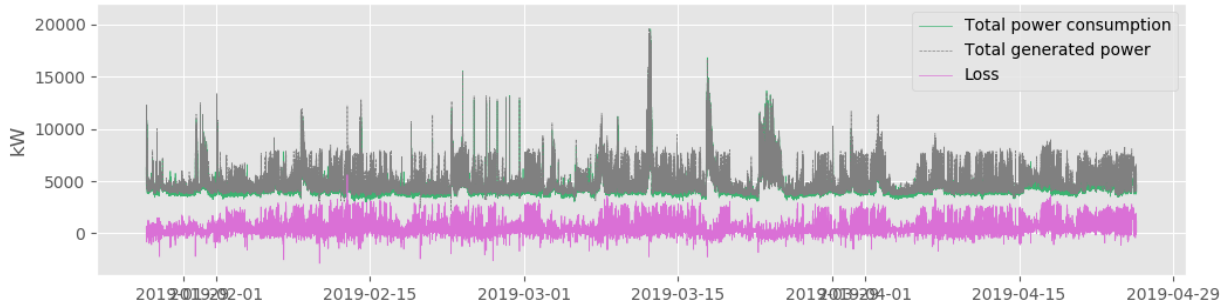
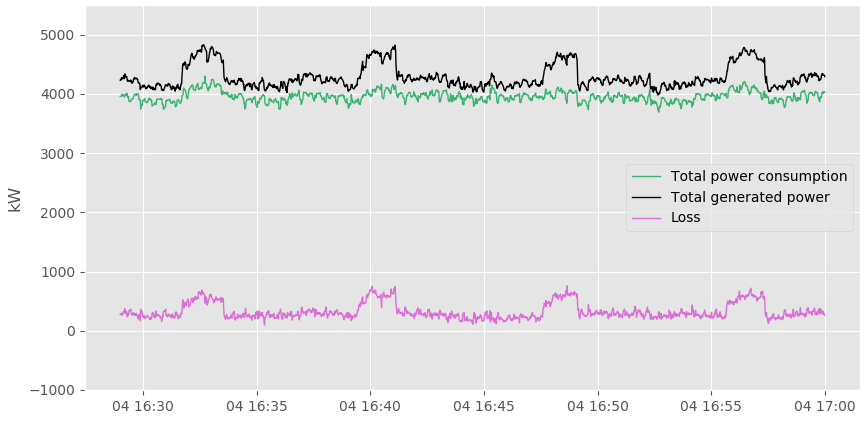


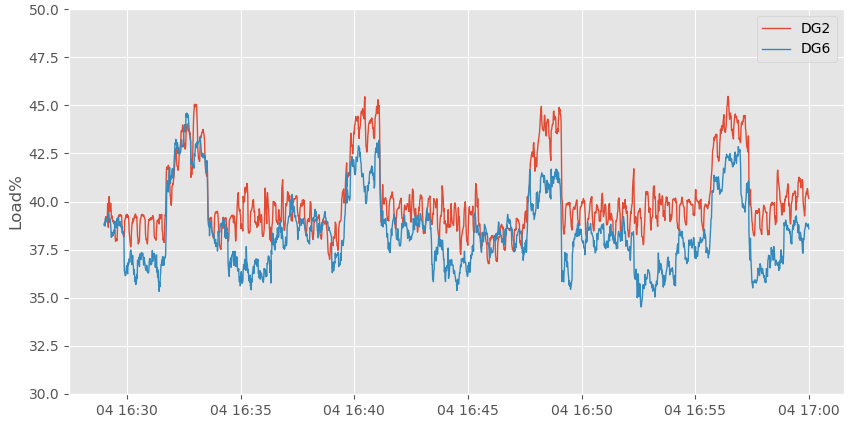
Figure 4.7: Consumed power vs generated power January - April 2019

engine load of diesel engines and the corresponding fuel consumption in Figures 4.8(b) and 4.8(c), it is clear that the same patterns are repeated.

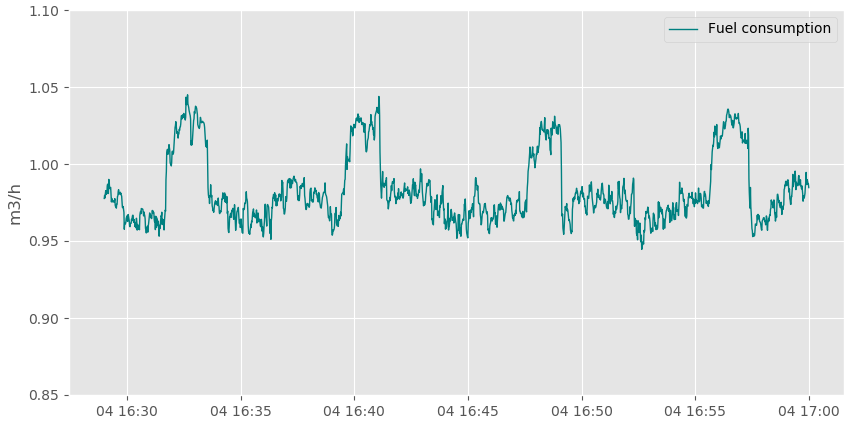
Another example is taken from the 15th of April 2019 at 15:15 UTC to demonstrate how fuel consumption varies with the engine load and number of generators online. The operational activity on DSA is time drilling at approximately 921 m depth in a well (see Appendix E), and Figure 4.9(a) the loss between generated and consumed power is stable. Diesel engines-generator sets 1, 2 and 6 are running steadily at approximately 25, 25 and 45 % engine load. The remaining five generators are not running. At a time between 15:18 and 15:19, diesel engine 2 is shut down, and diesel engine 1 increases to about 50 % load. The load is now carried by two engines instead of one. Figure 4.9(c) shows that the result is a significant decrease in fuel consumption of approximately 11% whilst the total generated power remains the same. This is because the diesel engines are now running at a more optimal engine load (as discussed in Section 4.1.2).



(a) Consumed power vs generated power

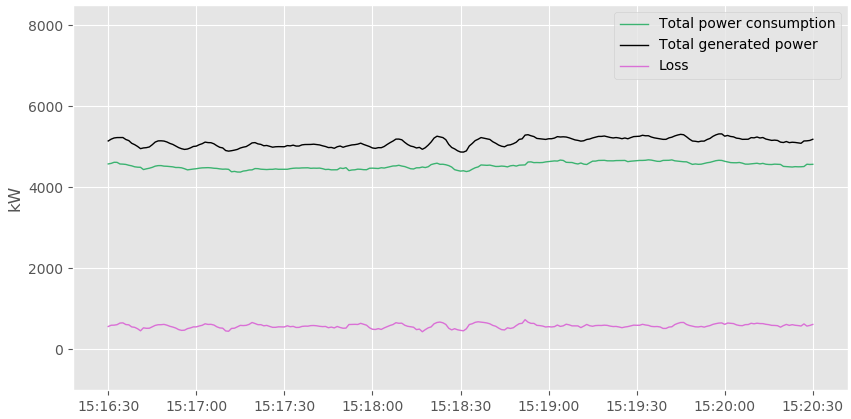


(b) Engine load of diesel engines connected to generators 2 and 6

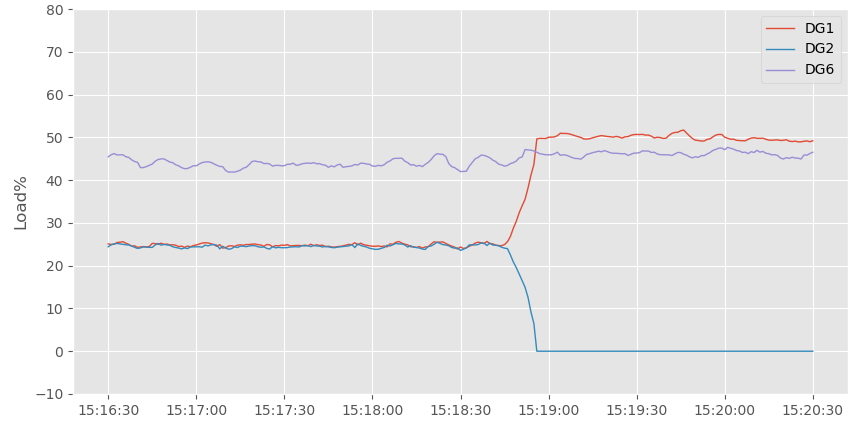


(c) Fuel consumption plot

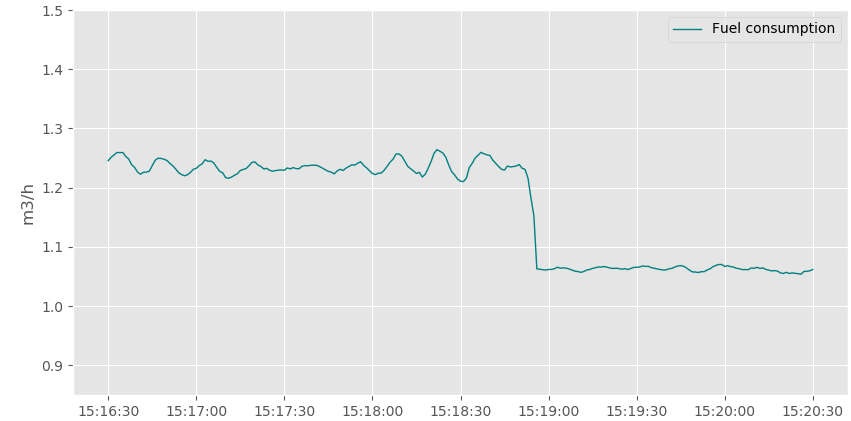
Figure 4.8: Example of power and fuel consumption on the 4th of February 2019



(a) Consumed power vs generated power



(b) Engine load of diesel engines connected to generators 1 to 8



(c) Fuel consumption plot

Figure 4.9: Example of power and fuel consumption on the 15th of April 2019

4.3 *Machine learning model*

An MLP model is built to predict fuel consumption as the target variable over a three month period from January to April in 2019 (as described in Section 4.2). The target inputs are presented as a time series in Figure 4.10.

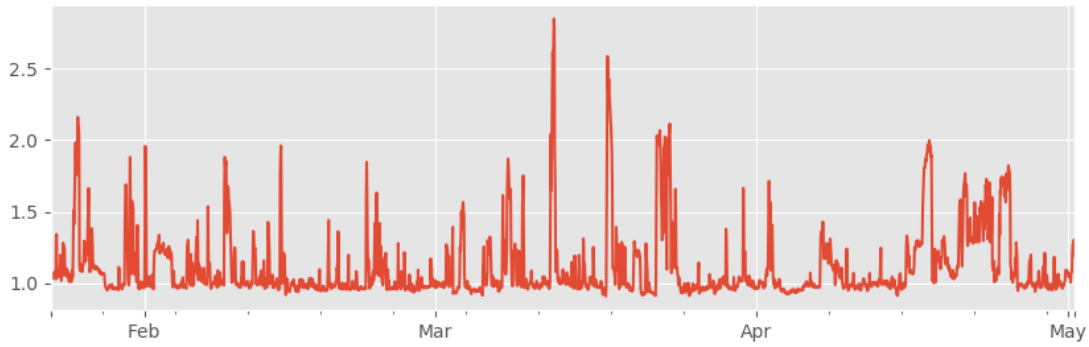


Figure 4.10: Fuel consumption over a period of three months on DSA

A correlation analysis is performed to get an understanding of which input features are important for the target value. A heat map of the input feature correlations with regards to fuel consumption is presented in Figure 4.11. Correlations are scaled from 1 (perfect positive correlation) to -1 (perfect negative correlation). The correlation plot indicates that features operational mode ”Drill actual”, wind speed, current speed, operational mode 23 ”waiting on weather” and depth in well are the features with most significant positive relationship with the target variable. Harsh weather conditions will cause high fuel consumption for the thrusters to keep the rig stationary above the well. Weather observations such as wind speed and wind direction will therefore be relevant metocean data for the predictive machine learning model. The draught of the MODU has the most negative correlation with fuel consumption.

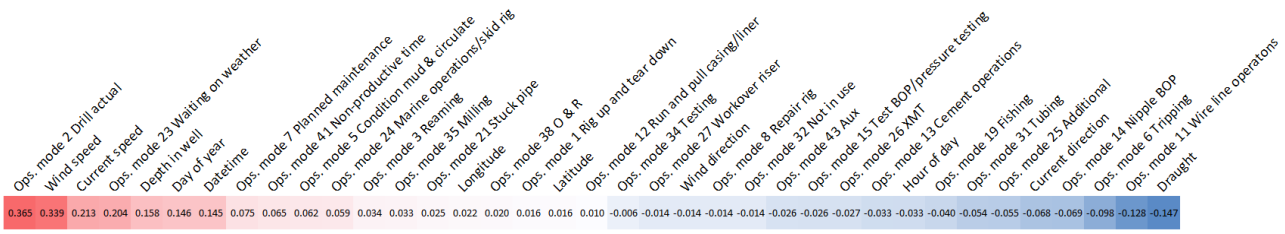


Figure 4.11: Correlation plot of input features with regards to fuel consumption

4.3.1 *Selecting neural network structure*

MLP models with different number of neurons in the hidden layers are tested and compared to find the model with best performance measured by the RMSE. The notation MLP(a,b,c) will be used to describe the architecture of the MLP models where a, b and c are the number of input neurons, number of hidden layers and number of outputs, respectively. Initial model parameters are presented in Table 4.1. Table 4.2 is the result from MLP(38,1,1), MLP(38,2,1) and MLP(38,3,1) models, and the best RMSE value is marked with bold numbers.

Table 4.1: Parameters for the MLP model in Table 4.2

Solver	Activation function	Max iterations	Early stopping	Tolerance	Initial learning rate
Adam/SGD	ReLU	40	10 epochs	0.0001	0.001

Table 4.2: Performance of different MLP architectures with Adam and SGD solver

ANN structure	Neurons in hidden layer	Adam solver RMSE	SGD solver RMSE
MLP(38,1,1)	20	0.1355	0.1397
	25	0.1280	0.1358
	30	0.1258	0.1319
	38	**0.1192**	**0.1271**
MLP(38,2,1)	20-20	0.1108	0.1232
	25-25	0.1024	0.1141
	30-25	0.1020	0.1121
	30-30	0.0992	0.1092
	38-38	**0.0919**	**0.1038**
MLP(38,3,1)	20-20-20	0.0971	0.1165
	25-25-25	0.0899	0.1057
	30-30-30	0.0845	0.1034
	38-30-38	0.0800	0.0965
	38-38-38	**0.0770**	**0.0953**

The MLP structure with highest performance is the MLP(38,1,1), MLP(38,2,1) and MLP(38,3,1) is with 38 neurons in each hidden layer. It is now useful to investigate how changing the α parameter in the L2 regularization term will influence the RMSE. The best models from Table 4.2 are now tested

using α parameters in the range between 1 and 0.0001 in Table 4.3 below with both the Adam and SGD solver.

Table 4.3: Tuning the α parameter

ANN structure	Neurons in hidden layer	α	Adam solver RMSE	SGD solver RMSE
MLP(38,1,1)	38	1.0000	0.1667	0.1649
		0.1000	0.1306	0.1298
		0.0100	0.1305	**0.1263**
		0.0010	0.1194	0.1270
		0.0001	**0.1192**	0.1271
MLP(38,2,1)	38-38	1.0000	0.1678	0.1669
		0.1000	0.1164	0.1161
		0.0100	0.0939	0.1043
		0.0010	**0.0901**	**0.1036**
		0.0001	0.1919	0.1038
MLP(38,3,1)	38-38-38	1.0000	0.1717	0.1703
		0.1000	0.1145	0.1087
		0.0100	0.0860	0.0982
		0.0010	0.0810	0.0961
		0.0001	**0.0770**	**0.0953**

The highest performing model with the Adam solver and SGD solver has an RMSE of 0.0770 and 0.0953, respectively. Figure 4.12 is the loss curve for these two models. The Adam solver model stopped after 16 iterations when the training loss did not improve more than the tolerance of 0.0001 for 10 consecutive epochs. The SGD solver was set to stop after 40 iterations. The loss curve indicates that the loss function stabilizes faster for the Adam solver than for the SGD solver. These results prove that the Adam solver performs better than the SGD solver. The best MLP model (with RMSE=0.0770) is now tested with different learning rates to find the optimal rate. The accuracy is measured as the R^2 value of both the training set and test set. Figure 4.13 indicates that the peak value for accuracy is found at the learning rate $\varepsilon = 0.001$ for both the test set and the training set.

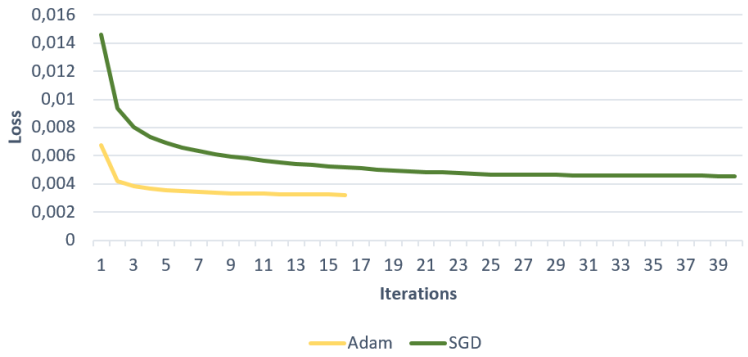


Figure 4.12: Loss curve

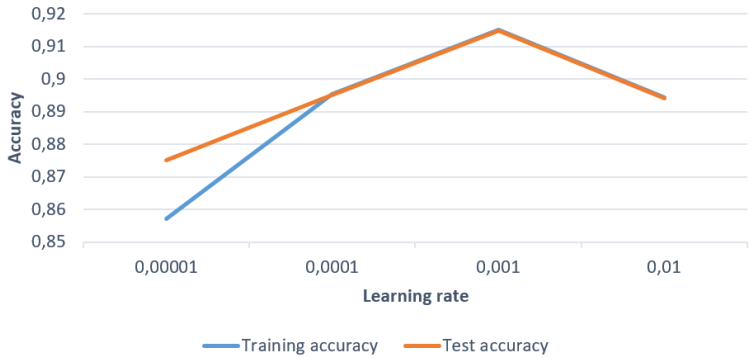
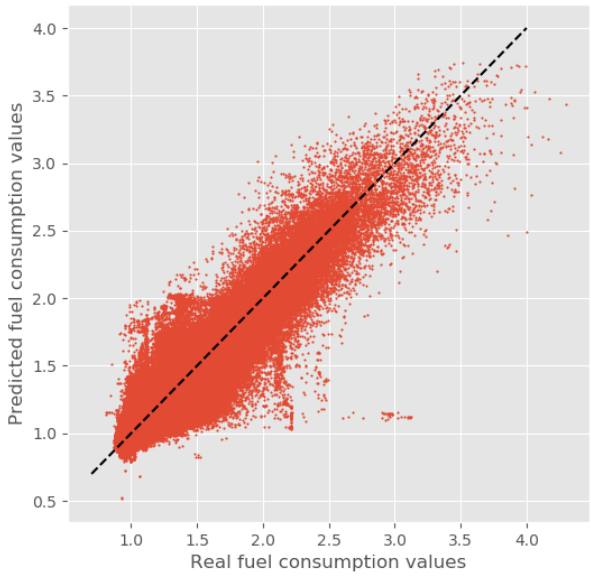


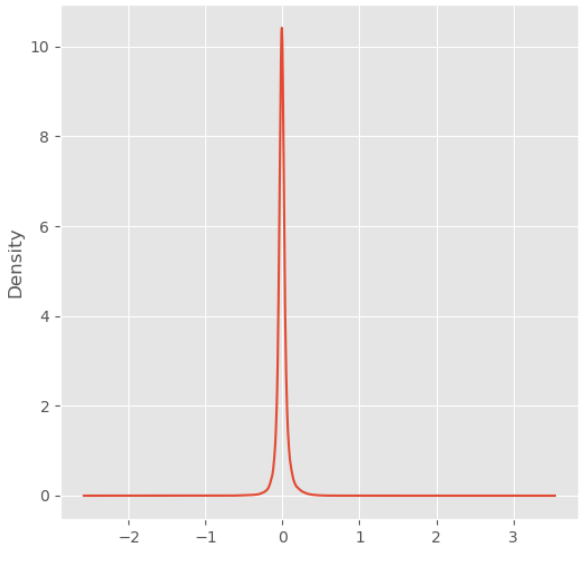
Figure 4.13: Comparison of training and test accuracy (R^2) as a function of learning rate

4.3.2 *Model results*

The model with the best performance is the MLP model with α = 0.0001 and the Adam solver for weight optimization. The number of input features is 38, and there are two hidden layers containing 38 neurons each. This means that there are $38 \cdot 38 = 1444$ weights between the input and the hidden layer. With a single neuron the in output layers, there is $38 \cdot 1 = 38$ weights between the hidden layer and the output layer. The learning rate is set to 0.001. Figure 4.14(a) is the resulting plot for the model performance of the MLP(a,b,c) model with Adam weight optimization and 38 neurons in each of the three hidden layers. This scatter plot compares the predicted values with the actual output values in the test set. The dotted line represents the perfect relationship between prediction and actual value where $\hat{y}$ = y. This MLP regression model predicts the fuel consumption for the test set with a MAE, MSE and RMSE of 0.0464, 0.0059 and 0.0770, respectively. A probability density plot of the residual errors between real and predicted consumption is presented in Figure 4.14(b)which indicates that residual errors are concentrated around 0. The mean residual is -0.005335.



(a) Real vs. predicted fuel consumption



(b) Probability density function of the residual errors

Figure 4.14: Model performance on test set

Figure 4.15 illustrates how the MLP model predicts fuel consumption in DSA over a three day period outside the training set from 25.04.2019 to 28.04.2019. This figure is an example of how well the machine learning model predicts short-term fuel consumption in a time series.

4.3.3 *Other forecasting methods*

The proposed MLP model is useful when making short-time predictions based on multiple known input variables, i.e. weather forecasts and known operational plans for the upcoming days or hours.

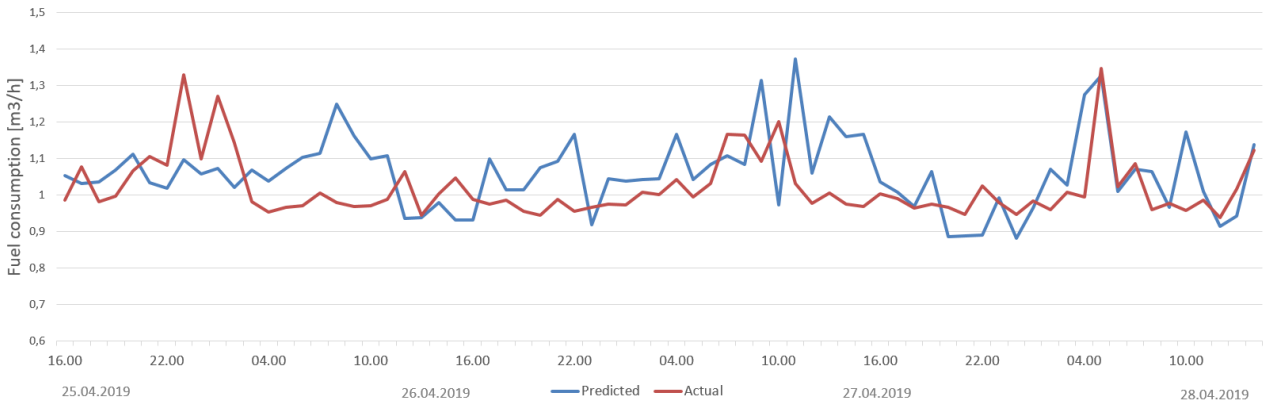


Figure 4.15: Predicted vs. actual fuel consumption from 25.04.2019 to 29.04.2019

Other relevant uses of machine learning and time series forecasting could be utilized to make long term predictions for fuel consumption based on seasonal variations and trends. The Autoregressive Integrated Moving Average (ARIMA) is one of the stochastic methods for long term time series forecasting. ARIMA is in fact one of the most widely used models for this purpose [22]. Autoregression is based on the principle that there is a correlation between the current observation and all past observations. The ARIMA model can make predictions based on univariate (one input) or multivariate (several inputs) time series. ARIMA is not implemented as part of thesis due to limited time period in the data set, however, this could be implemented at a later stage when more data is available. Forecasting with exponential smoothing is another alternative forecasting method where the future values of a time series is predicted as a weighted average between previous forecasts and the current values [47]. This algorithm is based on an exponential decrease in weights, meaning that recent observations is more important for the model than older data. Exponential smoothing is an alternative to the moving average algorithm where all observations are weighted equally. Forecasting with exponential smoothing is a very effective technique, and is able to model trends and seasonality in a time series. Since short-term forecasts are more relevant than long term trends and seasonal behaviours, this methods has not been applied to the data set in this thesis.

4.4 *Forecasting as a performance tool*

Determining performance goals for fuel consumption on a MODU is a difficult task due to the large variations in weather and operational conditions that influence the consumption. The machine learning model provides an estimate of the fuel consumption based on weather forecast and operational plan for the upcoming hours. This estimate can be presented to offshore personnel through a dashboard together with a set of goals for the next 12 or 24 hours. A time series (see Figure 4.16) with past consumption and future predictions is presented to the personnel through a dashboard, together with an upper and lower limit to indicate ”bad” and ”good” performance. For example, if the fuel consumption over the next hours fall between the predicted value and the lower limit, the performance goal is reached. If the actual consumption falls between predicted forecast and the upper limit, the goal is not reached. For this example, the upper and lower limit is set as 10% above and below the predicted forecast, respectively. Setting an upper and lower limit is difficult due to large uncertainties in weather forecasts and operational plans for the upcoming hours. One must also account for the uncertainty of

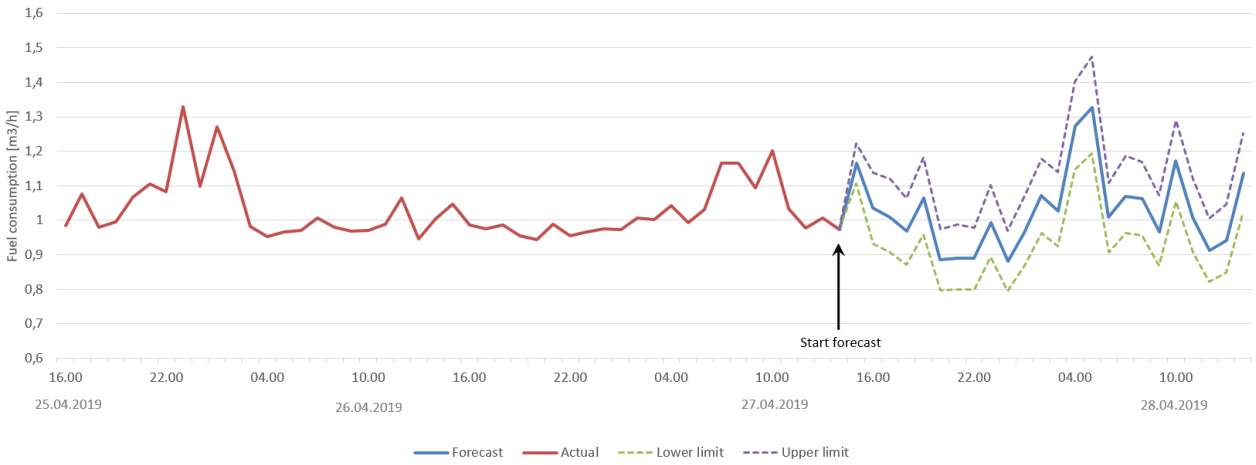


Figure 4.16: Performance measure based on forecast of fuel consumption

the MLP model. Determining upper and lower limits will likely require some trial and error before finding appropriate values.

In addition to the information given in Figure 4.16, a dashboard could contain information such as weather forecast and operational plans for the next 12 or 24 hours, safety alerts, performance statistics or other performance goals. A similar approach for Key Performance Indicator (KPI) predictions through machine learning has been used by accounting, consulting and technology firm Crowe [48]. Crowe presents KPIs within the health care industry based on moving average predictions, multivariate and univariate time series forecasting. The result is a dashboard with overview of historical data and future predictions for a target variable. Figure 4.17 is an example of how fuel predictions can be implemented into a dashboard as a performance tool for offshore personnel. This fuel performance concept is inspired by Crowe's KPI prediction tool and performance philosophies such as "Perfect well" developed by Equinor and Shell's "Drilling The Limit" philosophy. Please note that Figure 4.17 is only an illustrative example and not an exact representation of the operational plans, performance over the last weeks etc.

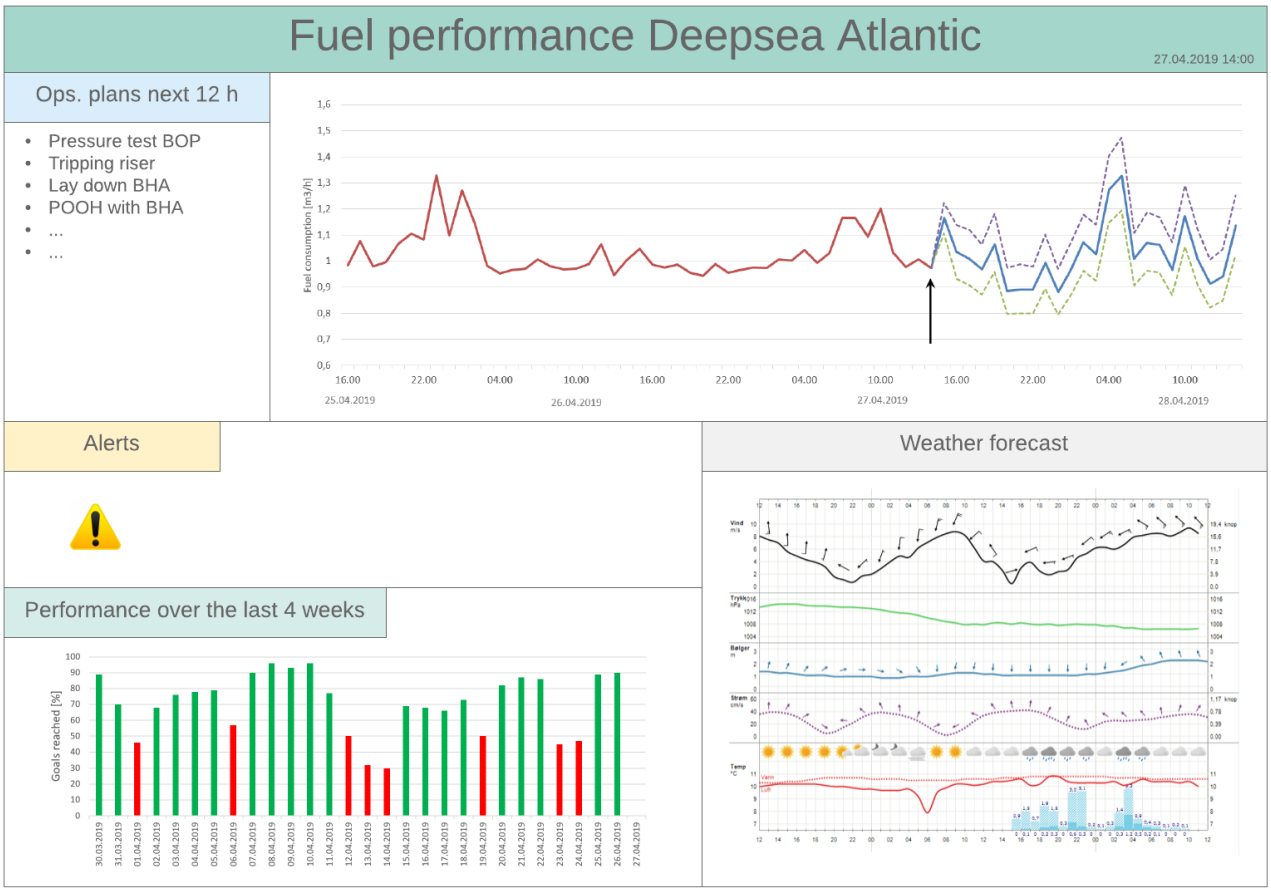


Figure 4.17: Example of dashboard layout for presenting fuel consumption related performance goals

5. Discussion

DSA is powered by a diesel-electric power plant, and power is distributed to thrusters, drilling equipment, marine utilities, drilling utilities and HVAC consumers. Marine utilities represent the largest power consumption in the time period from 25.01.2019 to 25.04.2019, followed by HVAC and drilling utilities. A correlation analysis is performed for the input variables in the machine learning model in order to understand how each input influences the target variable. Wind speed, current speed and "waiting on weather" indicate harsh weather conditions, resulting in higher power demand from thrusters to keep the floating rig stationary above the well. As expected, operational mode "Drill actual" also has high impact on fuel consumption. Increased draught has large negative correlation with fuel consumption, however, relevant literature concludes that a larger draught will increase fuel consumption on ships due to the increased resistance of the ship's hull [49]. Operational modes such as wireline operations and tripping have negative correlation with the fuel consumption.

Choice of model for this thesis is based on relevant research on predictive modelling based on machine learning and recommendations provided by the Scikit-learn map in Figure 2.3. MLP artificial neural networks are recommended as a simple tool for making predictions from large data sets [21]. For future research, it could be relevant to investigate the use of other models such as an artificial neural network with Long Short-Term Memory (LSTM) (as applied in a previous thesis by A. Karimi [31]), support vector regressor (studied by K. Mohammadi et al. [24]) or an ensemble regressor. Choice of input variables was based on available data, however, further improvements in the model accuracy can be made by adding more input features. Wave data such as maximum wave height, significant wave height and mean wave period has not been available for this data set. This would likely improve the accuracy if implemented into the MLP model. Data regarding the number of personnel on board could also be relevant, as well as data to determine if station-keeping is performed by thrusters, mooring or a combination of both.

A predictive model with best performance is obtained by training an MLP with three hidden layers with weight optimization by the Adam solver. The MLP regression model predicts the fuel consumption for the test set with MAE, MSE and RMSE of 0.0464, 0.0059 and 0.0770, respectively. The model performance scatter plot in Figure 4.14(a) shows that the predicted values for the test set is concentrated around the dotted line where $\hat{y}$ = y. The probability density function in Figure 4.14(b)

indicates that the residual error is concentrated around 0. The mean residual of -0.005335 implies that the difference between real and predicted value is close to zero and that, on average, the predicted value slightly overestimates the real value. This should be considered when setting performance goals based on forecasts.

As mentioned in Section 2.4, one of the main objectives of time series analysis is related to forecasting and control. Implementing the predictive model in the daily operations on a MODU has good potential to support decision-making and provide offshore personnel with a forecast of the fuel consumption over the next days or hours. Weather forecasts and the upcoming operational plans are easily loaded into the model, and the model gives an estimate of the upcoming fuel consumption based on historical data in the training set. It is possible to use the predicted values of fuel consumption to set fuel consumption related performance goals for offshore personnel, as presented in Figure 4.16. This process has similarities to the ”Perfect well” approach developed by Equinor. ”Perfect well” estimates the minimum time in which a well could possibly be drilled based on historical data. Determining the ”perfect” minimum fuel consumption is, however, a difficult task due to the large amount of contributing factors influencing the fuel consumption and uncertainties of the model and weather forecasts. Using a dashboard to present current status and short term performance goals to offshore personnel will solve several causes leading to poor fuel efficiency (as identified in the fishbone diagram in Figure 1.1), removing both personnel and technology from the fishbone diagram.

An important part of achieving such fuel performance related goals is to determine which factors we are able to change related to fuel consumption. Firstly, one can not change the weather conditions. However, it is possible to adjust the vessel heading to reduce wave action [45]. Operational modes are also not possible to change, however, the generator configuration can in some cases be changed if allowed by requirements for emergency preparedness. As described through an example in Section 4.2.1, reducing from 3 to 2 diesel engines will cause significant reduction in fuel consumption even though power demand (in kW) remains the same. Reducing power consumption related to equipment which is critical for drilling efficiency, however, will be counter productive if this leads to reduced efficiency in the drilling operation. Power consumption from equipment such as HVAC, third party consumers and certain drilling utilities which are not critical for the efficiency in operations could be reduced.

6. Conclusion

A machine learning based model for predicting fuel consumption on a MODU was presented in this thesis. Weather data, positional data and operational activities on the MODU were used as input features for the mode. The results indicate that an artificial neural network and the MLP regressor is a suitable algorithm for predictive modelling of fuel consumption on a MODU. Weight optimization by the Adam solver yields better results than the SGD solver for weight optimization. The best parameter for the L2 regularization term is 0.0001 with the Adam solver, and the optimal learning rate is ε=0.001. The MLP regression model predicts the fuel consumption for the test set with an RMSE of 0.0770. A dashboard layout for presenting offshore personnel with fuel consumption related performance goals based on predictive modelling is also presented in this thesis. Implementing such a performance tool has the potential to result in similar effects as seen with the implementation of ”Perfect well” approach in Equinor and Shell’s ”Drilling the Limit” performance philosophies.

The following is a list of recommendations for further research on the subject:

- Add more input features (wave data, mooring, personnel on board, etc.)
- Predict fuel consumption for different groups of consumers, such as thrusters/station-keeping or HVAC
- Combine machine learning model with methods for time-series forecasting such as ARIMA
- Investigate the use of LSTM (another neural network approach), support vector regressor or an ensemble regressor as an alternative to MLP
- Extend the machine learning model to learn from real-time data (online learning)

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A. Conference paper

Machine Learning Based Approach to Predict Short-Term Fuel Consumption on Mobile Offshore Drilling Units

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Abstract – **Application of machine learning models for optimization and improved decision-making has a great potential in the drilling industry. This paper demonstrates a model for predicting fuel consumption on a Mobile Offshore Drilling Unit (MODU) with a Multi-layer Perceptron (MLP) artificial neural network. The model is proposed as a tool for setting fuel consumption related performance goals for offshore personnel on a MODU. Operational and environmental data have been used as input variables for the model with a dataset split into 80% training set and 20% test set. The highest performance is obtained with two hidden layers with 38 nodes each. The Adam solver performs better than the Stochastic Gradient Descent (SGD) solver for weight optimization, and the best α parameter for the L2 regularization term is 0.0001 with the Adam solver. The MLP regression model predicts the fuel consumption for the test set with a Root Mean Squared Error (RMSE) of 0.0770. This result indicates that artificial neural networks and the MLP regressor is a suitable algorithm for predictive modelling of fuel consumption on a MODU.**

Keywords – **Fuel consumption, machine learning, predictive modelling, multi-layer perceptron**

I. INTRODUCTION

A floating semi-submersible drilling rig, or Mobile Offshore Drilling Unit (MODU), is powered by a diesel-electric power plant. The power demand varies with different operational activities and environmental conditions on the MODU [1]. Studying the impact of these variations on the fuel consumption could be one of the methods to improve energy management on a MODU. Improved energy management results in a reduction in fuel expenditures CO_2 emissions [2]. In this context, setting performance goals related to fuel consumption based on short-time predictions provides an approach for improving energy management on a MODU.

A machine learning approach has previously been used to predict fuel consumption in commercial buildings and for automobiles [3, 4]. Hence, it should be possible to use a similar approach for predicting fuel consumption on a MODU. The wide range of machine learning applications is enabled by the extensive research on the topic [5], as well as access to large amounts of operational data availability of affordable computers with high processing capabilities. Predictive modelling has many applications in the drilling industry. C. Hegde and K. Gray [6] developed a machine learning model for optimization of drilling parameters by modelling the Rate of Penetration (ROP), the Torque on Bit (TOB) and the Mechanical Specific Energy (MSE). Other studies have been performed on the prediction of fracture gradients [7], bubble-point pressure and formation-volume factor [8] and classifying rock type at a drilling bit [9]. Hence, the use of machine learning as a tool for optimization and improved decision-making has already proven great potential in the drilling industry. Machine learning technologies such as predictive modelling, classification and anomaly detection is therefore thought to be an essential part of the digitization of the drilling industry.

An artificial neural network model is selected for the machine learning algorithm for this paper. The artificial neural network is built as a system of interconnected processing units that mimic the biological neurons in the human brain [10]. According to R. B Gharbi and G. A. Mansoori, artificial neural networks are one of the three main technologies within Artificial Intelligence (AI) in the oil and gas industry together with fuzzy logic and expert systems [5]. For instance, a fuzzy expert system based approach was used for functionality failure risk analysis assessments for subsea pipeline systems [11]. Taking part in these developments within AI will be a necessity for offshore operators in order to stay competitive in the future, especially with the current global focus on digitization in the industry [12]. Smart use of data is in fact one of the top priorities in the oil and gas sector today [12]. The objective of this manuscript is to demonstrate a case study of the use of a machine learning approach in predicting short-term fuel consumption on a MODU operating on the Norwegian continental shelf. Predictions have been based on potential operational and environmental factors' variations (i.e. input to the machine learning model). The developed machine learning model is proposed as a tool for improved decision-making and for setting fuel consumption related performance goals for offshore personnel onboard on a MODU.

II. INDUSTRIAL CHALLENGE

Drilling rigs are large fuel consumers where diesel is used to generate electric energy to be consumed by various equipment on the rig. The fuel consumption on a MODU is mainly due to drilling activities, station-keeping, marine utilities, Heating, Ventilation and Air Conditioning (HVAC), and third-party consumers. It is important to analyze the variations of fuel consumption in order to

understand the impacts of operational and environmental conditions on the MODU. Excessive fuel consumption has large economic and environmental impacts. Hence, to address the aforementioned is a significant challenge and a necessity for the drilling rig operators. Although renewable energy sources and other alternative sources such as hydrogen may be the solution to reduce emissions in the long term, the focus for this paper is to utilize existing technology to improve fuel efficiency in the short term.

1) *Cause and effects*: A fishbone diagram of the cause and effects related to poor fuel efficiency is illustrated in Fig. 1.

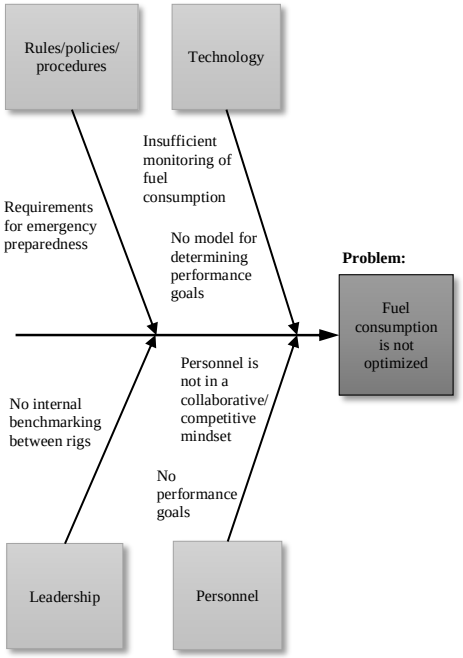

Fig. 1. Fishbone diagram of the causes and effects related to fuel consumption on a MODU.

The figure indicates how rules/policies/procedures, technology, leadership and personnel contributes to the problem of poor fuel efficiency on a MODU. Rules related to emergency preparedness dictate how many diesel generators must run simultaneously in case of an event such as drift-off, loss of a generator or a well control incident. This causes the generators to run at unfavorable load factor where fuel efficiency is low. Contributing factors could also be insufficient monitoring of fuel consumption and lack of tools to evaluate performance. Currently, as the personnel do not receive performance goals, the fuel efficiency has not been taken into consideration as a priority in an average working day. Financial incentives for reducing fuel consumption is another contributing factor. However, this is highly dependent on the type of contract, i.e. if the fuel expenditures are paid by the client (or the company) hiring the drilling rig. Moreover, internal benchmarking is another tool that has a potential for setting performance goals. Nevertheless, to date, none have been taken into consideration.

1) *Performance tool*:

One of the key objectives of predictive modeling is that it provides the ability to take actions based on forecasts. This makes predictive modelling especially relevant for various industrial applications. However, a common challenge regarding fuel management on a MODU is lack of tools to determine whether the fuel consumption is excessive or not. Equinor's "perfect well" approach for making time estimates for drilling and well operations is an example of successful implementation of such a performance tool [13, 14]. The perfect well time is described as "the minimum time in which a well could possibly be drilled" [13] and is calculated from historical data on similar wells. This historical data provides the shortest time recorded for each sub-operation, and adding each sub-operation together gives the time estimate for the "perfect well" [14]. This is a method for setting goals for the offshore personnel with focus on continuous improvement. The "perfect well" approach contributed to reducing the drilling time for onshore wells in the US from over 50 days to less than 10 days, proving that setting the offshore personnel in a collaborative and competitive mindset is useful for the efficiency in drilling operations [13].

III. METHODOLOGY

Case study and action research based mixed approach has been used as the research methodology [15, 16]. The machine learning based approach has been used to perform multi-criteria analysis (i.e. by taking environmental and operational variables as the input) for predicting fuel consumption.

1) *Research methodology*: A case study is a research method which investigates a contemporary phenomenon within its real-life context [15]. Conducting a case study for research purposes is be a useful strategy when posing "how" or "why" questions. The present paper poses the question of *how* to model predictions of fuel consumption based on *why* fuel consumption for a MODU is not optimized. A case study is therefore considered as a suitable approach for this purpose. The case study is conducted with the five steps of the action research cycle [16]; (1) identification of the problem, (2) collection and structuring of data, (3) interpretation of data, (4) actions based on data and (5) reflection.

2) *Data collection and pre-processing methodology*: Relevant data such as operational modes and weather conditions have been collected and used to train the model using a case study of a MODU operating on the Norwegian continental shelf. The target variable has been the fuel consumption and it is calculated based on the measured

power output from the diesel generators. Data from the MODU is imported as raw data and resampled to one data point per second. Operational modes are categorical inputs and are therefore presented in matrix form using one-hot-encoding. This method uses the binary 1 and 0 values to indicate if the operational mode is active or not. A complete list of the target value and input variables is presented in Table I. As the data used to train the model is not possible to use for verification of its accuracy, the collected data set has been split into a training set (i.e. 80% of the data set) and a test (i.e. 20% of the data set). Another preprocessing step has been carried out to remove the mean and scaling input variables to unit variance as the solvers used are sensitive to feature scaling.

TABLE I
TARGET VALUE AND INPUT VARIABLES

Variable	Unit
Fuel consumption	m^3/h
Datetime (UNIX)	-
Wind speed	m/s
Wind direction	rad
Current direction	rad
Current speed	m/s
Depth in well	m
Draught	m
Latitude	rad
Longitude	rad
Hour of day	-
Day of year	-
Ops. mode 1 Rig up and tear down	-
Ops. mode 2 Drill actual	-
Ops. mode 3 Reaming	-
Ops. mode 5 Condition mud & circulate	-
Ops. mode 6 Tripping	-
Ops. mode 7 Planned maintenance	-
Ops. mode 8 Repair rig	-
Ops. mode 11 Wire line operations	-
Ops. mode 12 Run and pull casing/liner	-
Ops. mode 13 Cement operations	-
Ops. mode 14 Nipple BOP	-
Ops. mode 15 Test BOP/pressure testing	-
Ops. mode 19 Fishing	-
Ops. mode 21 Stuck pipe	-
Ops. mode 23 Waiting on weather	-
Ops. mode 24 Marine operations/skid rig	-
Ops. mode 25 Additional	-
Ops. mode 26 XMT	-
Ops. mode 27 Workover riser	-
Ops. mode 31 Tubing	-
Ops. mode 32 Not in use	-
Ops. mode 34 Testing	-
Ops. mode 35 Milling	-
Ops. mode 38 O & R	-
Ops. mode 41 Non-productive time	-
Ops. mode 43 Aux	-

3) *Choice of model*: The selected model is a Multi-layer Perceptron (MLP) regression algorithm, which is a type of feed forward artificial neural network [17]. Fig. 2 illustrates an example of a feed forward neural network with a single hidden layer containing two nodes. MLP regression is seen as an extension of linear regression and is useful when predicting target values from one or multiple input features. Choice of parameters for the fuel consumption model, such as hidden layers, solver and α parameter, is based on a grid search over relevant parameter values.

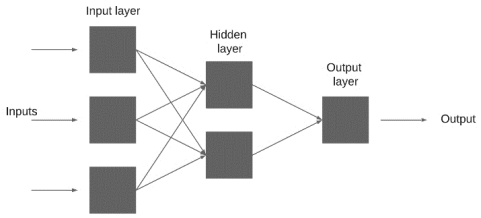

Fig. 2. Example of a feed forward neural network model with one hidden layer.

4) *Activation function*: The Rectified Linear Unit (ReLU) function is the selected activation function for the hidden layers. This function sets the output to 0 until the weighted average reaches zero. After this threshold, the function is linear [18, 19]. The ReLU function is expressed mathematically as $f(x) = \max(0,x)$.

5) *Layers*: The MLP model contains an input layer, an output layer and one or more hidden layers in between. Selecting a suitable number of hidden layers and the number of neurons in each hidden layer is important when building the neural network architecture. These are in fact the most important features of the model. A good starting point is to use one or two hidden layers with the same number of neurons as the number of input features [18], or around 2/3 of the size of the input layer [19]. Underfitting could occur if the number of hidden layers and neurons is too low for a complex problem. Too many neurons or hidden layers, on the other hand, could result in overfitting [12].

6) *Learning*: Connection weights are adjusted by comparing the expected output to the actual output from each node. Error between expected and actual output in the MLP model is evaluated by the square error loss function, written as:

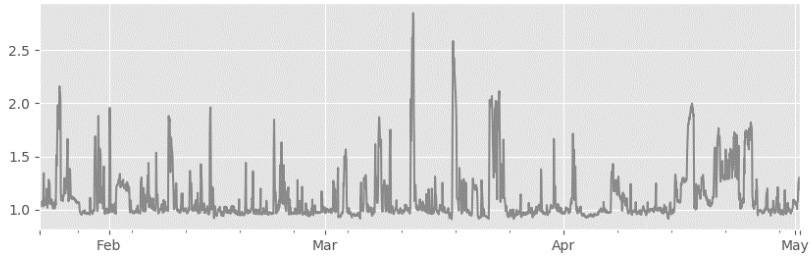

Fig. 3. Fuel consumption [m³/h] over a period of three months on a MODU.

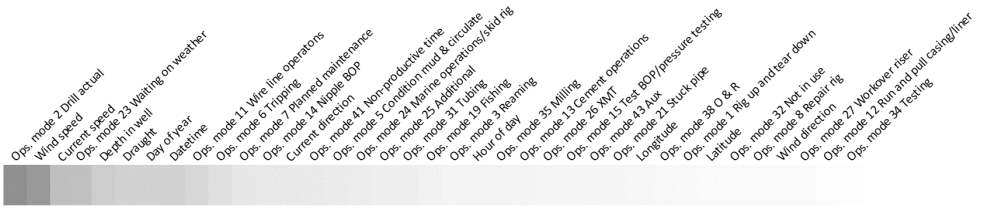

Fig. 4. Feature correlations from high (black) to low (white).

$$\mathrm{Loss}(\bar{y},y,W)=\frac{1}{2}|\bar{y}-y|+\frac{\alpha}{2}|W|^2 \quad (1)$$

where $\bar{y}$ is the predicted value, y is the actual value and W is the connection weight. $\frac{\alpha}{2}|W|^2$ is the L2-regularization term which is added to the loss function to prevent overfitting by shrinking weights with large values. The regularization term contains an α value which is a parameter that controls how large the penalty, or shrinking, should be for the regularization term [20].

Minimizing the loss function increases model accuracy, and this is done by weight optimization. Backpropagation is used to pass the updated weight back to the previous layers. The change in weights is determined from gradient descent by calculating the partial derivative of the loss function to see how parameters should be changed to minimize the loss. The change in weights is calculated from the following equation:

$$W^{(i+1)}=W^{i}-\varepsilon\nabla Loss^{i}_{W} \quad (2)$$

where i is the iteration step and ε is the learning rate, which is the step size for gradient descent [20]. Weights are updated repeatedly until the algorithm stops at 40 iterations, or if the validation score is below a certain value for 10 consecutive iterations. Weight optimization is performed by implementing a learning algorithm. Both the Adam and Stochastic Gradient Descent (SGD) solvers are considered for the fuel consumption model. Both solvers are stochastic optimizers. The Adam solver is developed by Jimmy Ba *et al.*, and is suitable for relatively large data sets [21]. Weight optimization by SGD supports adaptive learning rates where the learning rate is reduced when the improvement in training loss is below a set value.

6) *Performance measure*: There are numerous methods for measuring the performance of a predictive model. A common method is the Root Mean Squared Error (RMSE), which is the root of the average squared difference between real values and the predicted values. RMSE is calculated by the following equation:

$$RMSE=\sqrt{\frac{1}{n}\sum_{i=0}^{n}(y_i-\bar{y}_i)^2} \quad (3)$$

where n is the number of samples.

IV. RESULTS

A. Fuel Consumption and Feature Correlations

Fig. 3 illustrates the hourly fuel consumption over a period of three months in 2019 for a MODU operating in the North Sea. The mean value for fuel consumption in this time period is 1.11 m³/h. Feature correlations for this time period (Fig. 4) indicate that operational mode 2 "Drill actual", wind speed, current speed, operational mode 23 "Waiting on weather" and the depth in well are the features with most influence on the target variable.

B. Model Results

MLP models with different number of neurons in the hidden layers are tested and compared to find the model with best performance measured by the RMSE. The

notation MLP(a,b,c) will be used to describe the architecture of the MLP models where a, b and c are the number of inputs, number of hidden layers and number of outputs, respectively. Table II shows the results from MLP(38,2,1) and MLP(38,3,1) models with different number of neurons in the hidden layers. The α parameter is set to 0.0001. The Adam and SGD learning rate is set to be adaptive from 0.001. The tolerance is set to 0.0001.

TABLE II
NUMBER OF NEURONS IN HIDDEN LAYER

MLP model	Neurons in hidden layers	"Adam" RMSE	"SGD" RMSE
MLP (38,2,1)	20, 20	0.1108	0.1232
MLP (38,2,1)	25, 25	0.1024	0.1141
MLP(38,2,1)	30, 25	0.1020	0.1121
MLP (38,2,1)	30, 30	0.0992	0.1092
MLP (38,2,1)	38, 38	**0.0919**	**0.1038**
MLP (38,3,1)	20, 20, 20	0.0971	0.1165
MLP (38,3,1)	25, 25, 25	0.0899	0.1057
MLP (38,3,1)	30, 30, 30	0.0845	0.1034
MLP (38,3,1)	38, 30, 38	0.0800	0.0965
MLP (38,3,1)	38, 38, 38	**0.0770**	**0.0953**

The MLP structure with highest performance is the MLP(38,2,1) and MLP(38,3,1) with 38 neurons in each hidden layer. It is now useful to investigate how changing the α parameter influences the RMSE. The best models from Table II are tested using α parameters in the range between 1 and 0.0001 in Table III with the Adam and SGD solver. The best model performance for the MLP(38,2,1) and MLP(38,3,1) model is marked with bold numbers. The lowest overall RMSE is achieved with the Adam solver with α = 0.0001. Fig. 5 is the loss curve for this model as well as the best model with SGD solver. The Adam solver model stopped after 16 iterations when the training loss did not improve more than the tolerance of 0.0001 for 10 consecutive epochs. The SGD solver was set to an early stop after 40 iterations.

TABLE III
CHOICE OF SOLVER AND TUNING THE α PARAMETER

MLP model	Neurons in hidden layers	α	«Adam» RMSE	«SGD» RMSE
MLP(38,2,1)	38, 38	1.0000	0.1678	0.1669
MLP(38,2,1)	38, 38	0.1000	0.1164	0.1161
MLP(38,2,1)	38, 38	0.0100	0.0939	0.1043
MLP(38,2,1)	38, 38	0.0010	**0.0901**	**0.1036**
MLP(38,2,1)	38, 38	0.0001	0.0919	0.1038
MLP(38,3,1)	38, 38, 38	1.0000	0.1717	0.1703
MLP(38,3,1)	38, 38, 38	0.1000	0.1145	0.1087
MLP(38,3,1)	38, 38, 38	0.0100	0.0860	0.0982
MLP(38,3,1)	38, 38, 38	0.0010	0.0810	0.0961
MLP(38,3,1)	38, 38, 38	0.0001	**0.0770**	**0.0953**

The lowest overall RMSE is achieved with the Adam solver with α = 0.0001. Fig. 5 is the loss curve for this model as well as the best model with SGD solver.

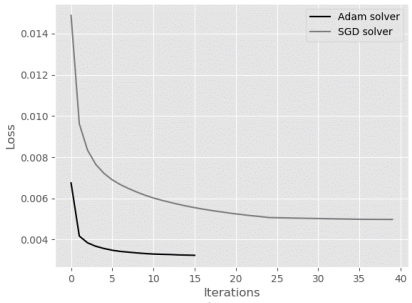

Fig. 5. Loss curve for the MLP model.

The Adam solver model stopped after 16 iterations when the training loss did not improve more than the tolerance of 0.0001 for 10 consecutive epochs. The SGD solver was set to an early stop after 40 iterations. Fig. 6 is the resulting plot for the model performance of the MLP(38,3,1) model with Adam weight optimization and 38 neurons in both hidden layers. This scatter plot compares the predicted values with the actual output values in the test set. The dotted line represents the perfect relationship where $\bar{y} = y$. A probability density plot of the residual errors between real and predicted consumption is presented in Fig. 7, and indicate that the residual error is concentrated around 0. The mean residual is -5.335e-3.

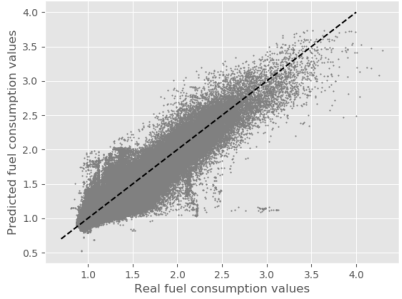

Fig. 6. Model performance on test set.

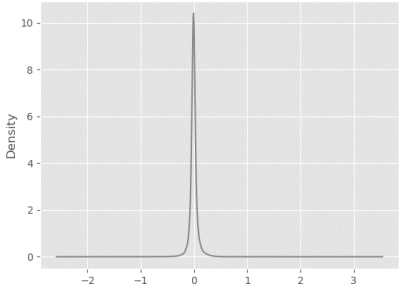

Fig.7. Probability density function of the residual errors.

V. DISCUSSION

A correlation analysis is performed for the input variables in order to understand how each input influences the target variable. Wind speed, current speed and "waiting on weather" indicate harsh weather conditions, resulting in higher power demand from thrusters to keep the floating rig stationary above the well. As expected, operational mode 2 "Drill actual" also has high impact on fuel consumption. A predictive model with best performance is obtained by training an MLP with three hidden layers with weight optimization by the Adam solver. The MLP regression model predicts the fuel consumption for the test set with a mean absolute error, mean square error and root mean square error of 0.0464, 0.0059 and 0.0770, respectively. The model performance scatter plot in Fig. 6 shows that the predicted values for the test set is concentrated around the dotted line where $\bar{y} = y$. The mean residual indicates that the difference between real and predicted value is close to zero and that, on average, the predicted value slightly overestimates the real value.

Implementing this predictive model in the daily operations on a MODU has good potential to support decision-making and give offshore personnel a forecast of the fuel consumption over the next days or hours. Weather forecasts and the upcoming operational plans are easily loaded into the model, and the model gives an estimate of the upcoming fuel consumption based on historical data in the training set. Table IV illustrate predictions using the proposed machine learning based approach. Only the three most important features (ops. mode 2, wind speed and current speed) are described in this table.

TABLE IV
ILLUSTRATIVE PREDICTIONS OF FUEL CONSUMPTION

Ops. mode 2 "Drill actual"	Wind speed	Current speed	Actual value	Predicted value
0	7.858465	0.285602	0.988064	0.993091
0	20.76176	0.882120	2.532198	2.501048
0	9.541561	0.865391	1.003447	1.037735
0	5.131526	0.521386	1.206436	1.196783
1	18.777922	0.730153	1.112798	1.190533
0	3.267473	0.541350	1.281728	1.300634
0	17.456802	0.927621	1.105952	1.120031

It is possible to use these predicted values of fuel consumptions to set performance goals for offshore personnel, much like the "perfect well" approach developed by Equinor.

VI. CONCLUSION

Results from this paper indicates that artificial neural networks and the MLP regressor is a suitable algorithm for predictive modelling of fuel consumption on a MODU. Weight optimization by the Adam solver yields better results than the SGD solver for weight optimization. The best α parameter for the L2 regularization term is 0.0001 with the Adam solver. The MLP regression model predicts the fuel consumption for the test set with an RMSE of 0.0770. The following is a list of recommendations for further research on the subject:

- Predict fuel consumption for different groups of consumers, such as thrusters/station-keeping or HVAC.
- Combine machine learning model with methods for time series forecasting such as Autoregressive Integrated Moving Average (ARIMA).

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B. Python scripts

Daily drilling log

June 10, 2019

1 Daily drilling log

1.0.1 Import necessary packages and load data

In [2]:
```
# Import packages
%matplotlib notebook
import pandas as pd
import matplotlib.pyplot as plt
import numpy as np
import datetime as dt
from matplotlib import style
style.use('ggplot')
from pandas import datetime
from pandas.plotting import register_matplotlib_converters
register_matplotlib_converters()
import seaborn as sns
```

In [3]:
```
# Load Excel file
time_log=pd.read_excel('DSA_log.xlsx', sheet_name = 'Main', skiprows=2, usecols=('A,C,I
time_log.head(5)
```

Out[3]:

	Date	Start Time	Depth	Operation Code	\
2805	2019-01-20	2019-01-20 00:00:00	0.0	24.60	
2804	2019-01-20	2019-01-20 00:20:00	0.0	24.00	
2803	2019-01-20	2019-01-20 09:45:00	0.0	24.73	
2802	2019-01-20	2019-01-20 12:00:00	0.0	24.73	
2801	2019-01-20	2019-01-20 18:00:00	0.0	24.20	

	Operation Code Name
2805	YARDSTAY/MAINTENANCE STOP
2804	IN TRANSIT / SKID RIG
2803	DP TRIALS
2802	DP TRIALS
2801	ANCHOR HANDLING ARRIVAL

1.0.2 Data cleaning

In [4]:
```
# Convert from Europe/Oslo time zone to UTC time zone
time_log["Start Time"] = time_log["Start Time"].dt.tz_localize("Europe/Oslo").dt.tz_co
```

```
In [5]: # Add datetime column
        time_log['Datetime'] = time_log['Start Time']

In [6]: # Find duplicate rows
        pd.value_counts(time_log['Datetime'])

Out[6]: 2019-02-26 13:30:00+00:00    2
        2019-04-27 11:10:00+00:00    2
        2019-04-26 23:20:00+00:00    2
        2019-04-27 01:40:00+00:00    2
        2019-02-01 04:30:00+00:00    2
        2019-02-05 11:25:00+00:00    2
        2019-03-12 06:00:00+00:00    2
        2019-04-27 04:00:00+00:00    2
        2019-02-25 12:45:00+00:00    2
        2019-04-15 05:45:00+00:00    2
        2019-02-12 00:00:00+00:00    2
        2019-02-25 11:30:00+00:00    2
        2019-02-25 13:15:00+00:00    2
        2019-03-15 10:15:00+00:00    2
        2019-02-25 11:00:00+00:00    2
        2019-04-26 22:00:00+00:00    2
        2019-02-25 13:00:00+00:00    2
        2019-03-12 10:30:00+00:00    1
        2019-03-01 23:45:00+00:00    1
        2019-04-03 05:45:00+00:00    1
        2019-03-17 04:30:00+00:00    1
        2019-02-01 16:30:00+00:00    1
        2019-03-28 12:45:00+00:00    1
        2019-02-15 07:55:00+00:00    1
        2019-03-30 23:00:00+00:00    1
        2019-04-24 03:10:00+00:00    1
        2019-02-13 00:50:00+00:00    1
        2019-04-14 03:45:00+00:00    1
        2019-04-19 20:00:00+00:00    1
        2019-02-10 15:30:00+00:00    1
                                    ..
        2019-03-03 09:30:00+00:00    1
        2019-04-29 22:45:00+00:00    1
        2019-03-14 14:20:00+00:00    1
        2019-02-02 05:30:00+00:00    1
        2019-02-22 14:10:00+00:00    1
        2019-02-06 17:00:00+00:00    1
        2019-04-10 00:20:00+00:00    1
        2019-04-02 01:45:00+00:00    1
        2019-04-13 21:15:00+00:00    1
        2019-01-23 11:00:00+00:00    1
        2019-03-14 08:15:00+00:00    1
```

```
2019-02-14 01:00:00+00:00    1
2019-04-14 07:05:00+00:00    1
2019-02-13 05:30:00+00:00    1
2019-03-28 06:15:00+00:00    1
2019-02-15 11:15:00+00:00    1
2019-03-15 18:30:00+00:00    1
2019-04-29 22:25:00+00:00    1
2019-04-13 23:05:00+00:00    1
2019-04-15 07:30:00+00:00    1
2019-03-20 06:00:00+00:00    1
2019-02-24 10:15:00+00:00    1
2019-02-19 12:30:00+00:00    1
2019-03-26 23:15:00+00:00    1
2019-04-11 05:45:00+00:00    1
2019-03-29 05:00:00+00:00    1
2019-04-26 07:30:00+00:00    1
2019-02-09 13:30:00+00:00    1
2019-03-12 10:15:00+00:00    1
2019-02-21 22:00:00+00:00    1
Name: Datetime, Length: 2789, dtype: int64
```

In [7]:
```
# See which rows are duplicated
time_log[time_log.duplicated(keep=False)]
```

Out[7]:

	Date	Start Time	Depth	Operation Code	Operation Code Name	Datetime
2727	2019-02-01	2019-02-01 04:30:00+00:00	0.0	14.31	HANDLE LANDING JOINT	2019-02-01 04:30:00+00:00
2726	2019-02-01	2019-02-01 04:30:00+00:00	0.0	14.31	HANDLE LANDING JOINT	2019-02-01 04:30:00+00:00
1943	2019-02-25	2019-02-25 11:30:00+00:00	0.0	14.17	RIG DOWN BOP RUNNING EQUIPMENT	2019-02-25 11:30:00+00:00
1942	2019-02-25	2019-02-25 11:30:00+00:00	0.0	14.17	RIG DOWN BOP RUNNING EQUIPMENT	2019-02-25 11:30:00+00:00
1941	2019-02-25	2019-02-25 12:45:00+00:00	0.0	14.17	RIG DOWN BOP RUNNING EQUIPMENT	2019-02-25 12:45:00+00:00
1940	2019-02-25	2019-02-25 12:45:00+00:00	0.0	14.17	RIG DOWN BOP RUNNING EQUIPMENT	2019-02-25 12:45:00+00:00
1939	2019-02-25	2019-02-25 13:00:00+00:00	0.0	6.33	CHANGE HANDLING EQUIPMENT	2019-02-25 13:00:00+00:00
1938	2019-02-25	2019-02-25 13:00:00+00:00	0.0	6.33	CHANGE HANDLING EQUIPMENT	2019-02-25 13:00:00+00:00
1937	2019-02-25	2019-02-25 13:15:00+00:00	0.0	14.23	RUN, LP-RISER / DIVERTER	2019-02-25 13:15:00+00:00
1936	2019-02-25	2019-02-25 13:15:00+00:00	0.0	14.23		
397	2019-04-15	2019-04-15 05:45:00+00:00	0.0	25.30		
396	2019-04-15	2019-04-15 05:45:00+00:00	0.0	25.30		

```
1936        RUN, LP-RISER / DIVERTER 2019-02-25 13:15:00+00:00
397    PREJOBMEETING - BRIEF/DEBRIEF 2019-04-15 05:45:00+00:00
396    PREJOBMEETING - BRIEF/DEBRIEF 2019-04-15 05:45:00+00:00
```

In [8]:
```
# Drop duplicates
time_log = time_log.drop_duplicates(subset='Datetime',keep='first')
```

In [9]:
```
# Change datetime from string to DateTime
time_log['Datetime']=pd.to_datetime(time_log['Datetime'])
time_log.head(5)
```

Out[9]:

	Date	Start Time	Depth	Operation Code	\
2805	2019-01-20	2019-01-19 23:00:00+00:00	0.0	24.60	
2804	2019-01-20	2019-01-19 23:20:00+00:00	0.0	24.00	
2803	2019-01-20	2019-01-20 08:45:00+00:00	0.0	24.73	
2802	2019-01-20	2019-01-20 11:00:00+00:00	0.0	24.73	
2801	2019-01-20	2019-01-20 17:00:00+00:00	0.0	24.20	

	Operation Code Name	Datetime
2805	YARDSTAY/MAINTENANCE STOP	2019-01-19 23:00:00+00:00
2804	IN TRANSIT / SKID RIG	2019-01-19 23:20:00+00:00
2803	DP TRIALS	2019-01-20 08:45:00+00:00
2802	DP TRIALS	2019-01-20 11:00:00+00:00
2801	ANCHOR HANDLING ARRIVAL	2019-01-20 17:00:00+00:00

In [13]:
```
# Set Datetime as index column
OPS = time_log.set_index('Datetime').iloc[:,2:5]
```

In [14]:
```
# Resample to 1 sec
OPS_res = OPS.resample('1s').pad()
```

In [15]:
```
# Dataframe with only "Depth" and "Operation Code"
df = OPS_res.iloc[:,0:2]
```

In [16]:
```
# Choose time interval for dataframe
df_new = df.loc['2019-01-25 16:00:00':'2019-04-29 16:00:00']
```

In [ ]:
```
# Save as CSV file
df_new.to_csv('drilling_log.csv')
```

1.0.3 One-hot encoding of operation codes

In [17]:
```
# Dataframe with only operation codes
log_s = df_new['Operation Code']
```

In [18]:
```
# Round off operation codes to integer
log_int = round(log_s)
```

In [19]:
```
# Create dummy variables (one-hot encoding)
ops_int = pd.get_dummies(log_int)
```

```
In [21]: # Check which ops codes we have
         ops_int.columns
```

```
Out[21]: Float64Index([ 1.0,  2.0,  3.0,  5.0,  6.0,  7.0,  8.0, 11.0, 12.0, 13.0, 14.0,
                       15.0, 19.0, 21.0, 23.0, 24.0, 25.0, 26.0, 27.0, 31.0, 32.0, 34.0,
                       35.0, 38.0, 41.0, 43.0],
                      dtype='float64')
```

```
In [22]: # This is the resuling one-hot encoded matrix
         ops_int.head(5)
```

Out[22]:

Datetime	1.0	2.0	3.0	5.0	6.0	7.0	8.0	11.0	\
2019-01-25 16:00:00+00:00	0	0	0	0	0	0	0	0	
2019-01-25 16:00:01+00:00	0	0	0	0	0	0	0	0	
2019-01-25 16:00:02+00:00	0	0	0	0	0	0	0	0	
2019-01-25 16:00:03+00:00	0	0	0	0	0	0	0	0	
2019-01-25 16:00:04+00:00	0	0	0	0	0	0	0	0	

Datetime	12.0	13.0	...	25.0	26.0	27.0	31.0	32.0	\
			...						
2019-01-25 16:00:00+00:00	0	0	...	0	0	0	0	0	
2019-01-25 16:00:01+00:00	0	0	...	0	0	0	0	0	
2019-01-25 16:00:02+00:00	0	0	...	0	0	0	0	0	
2019-01-25 16:00:03+00:00	0	0	...	0	0	0	0	0	
2019-01-25 16:00:04+00:00	0	0	...	0	0	0	0	0	

Datetime	34.0	35.0	38.0	41.0	43.0
2019-01-25 16:00:00+00:00	0	0	0	0	1
2019-01-25 16:00:01+00:00	0	0	0	0	1
2019-01-25 16:00:02+00:00	0	0	0	0	1
2019-01-25 16:00:03+00:00	0	0	0	0	1
2019-01-25 16:00:04+00:00	0	0	0	0	1

[5 rows x 26 columns]

```
In [ ]: # Save as CSV file
        ops_int.to_csv('drilling_one_hot_encoded.csv')
```

Fuelcons

June 10, 2019

1 Fuel calculations

1.0.1 Import necessary packages

In [1]:
```
# Import packages
%matplotlib notebook
import pandas as pd
import matplotlib.pyplot as plt
import numpy as np
import datetime as dt
from matplotlib import style
style.use('ggplot')
from pandas import datetime
import datareservoirio as drio
from pandas.plotting import register_matplotlib_converters
register_matplotlib_converters()
import seaborn as sns
```

In [2]:
```
#Define time format
def parser(x):
    return datetime.strptime(x, '%Y-%m-%d %H:%M:%S.%f')
```

In [3]:
```
# DataReservoir authenticator
auth = drio.Authenticator()
```

```
Authentication from previous session still valid.
```

In [4]:
```
client = drio.Client(auth, cache_opt={'max_size': 128*1024})
```

1.0.2 Fuel consumption

In [5]:
```
# Define time interval
start='2019-01-20 16:00:00'
end='2019-05-01 16:00:00'
```

In [6]:
```
# Load generator power data from DataReservoir
incomer_gen1_pwr_raw = client.get('8d799c0e-3c93-4e11-8a5f-268ba991c0b5',start = start
incomer_gen2_pwr_raw = client.get('289f8ab1-6982-47af-803e-2628145ba4ed',start = start
```

```
incomer_gen3_pwr_raw = client.get('355f976b-1ed0-4337-956c-fdd51d9b93ab',start = start
incomer_gen4_pwr_raw = client.get('607ffd49-916b-4ea9-a971-114e3a25df27',start = start
incomer_gen5_pwr_raw = client.get('2b186ec6-254a-42cf-be5c-242c2d8c7588',start = start
incomer_gen6_pwr_raw = client.get('c570b34c-9fb2-4f87-a62d-70dc6d19d0b7',start = start
incomer_gen7_pwr_raw = client.get('1203cc00-c8b7-496c-b604-8f145f06cef7',start = start
incomer_gen8_pwr_raw = client.get('04d1a3c6-8bdd-47ff-af4e-ae099173643d',start = start
```

In [7]:
```
# Resample to 1 s with forward fill
incomer_gen1_pwr_res = incomer_gen1_pwr_raw.resample('1s').pad()
incomer_gen2_pwr_res = incomer_gen2_pwr_raw.resample('1s').pad()
incomer_gen3_pwr_res = incomer_gen3_pwr_raw.resample('1s').pad()
incomer_gen4_pwr_res = incomer_gen4_pwr_raw.resample('1s').pad()
incomer_gen5_pwr_res = incomer_gen5_pwr_raw.resample('1s').pad()
incomer_gen6_pwr_res = incomer_gen6_pwr_raw.resample('1s').pad()
incomer_gen7_pwr_res = incomer_gen7_pwr_raw.resample('1s').pad()
incomer_gen8_pwr_res = incomer_gen8_pwr_raw.resample('1s').pad()
```

In [8]:
```
# Calculate engine load/load%
load_perc_gen1 = incomer_gen1_pwr_res / (5760*0.96*0.98)
load_perc_gen2 = incomer_gen2_pwr_res / (5760*0.96*0.98)
load_perc_gen3 = incomer_gen3_pwr_res / (5760*0.96*0.98)
load_perc_gen4 = incomer_gen4_pwr_res / (5760*0.96*0.98)
load_perc_gen5 = incomer_gen5_pwr_res / (5760*0.96*0.98)
load_perc_gen6 = incomer_gen6_pwr_res / (5760*0.96*0.98)
load_perc_gen7 = incomer_gen7_pwr_res / (5760*0.96*0.98)
load_perc_gen8 = incomer_gen8_pwr_res / (5760*0.96*0.98)
```

In [9]:
```
# Plot load%
fig=plt.figure(figsize=(10,5))
ax1=fig.add_subplot(111)
plt.title('Title', y=1)

ax1.plot(load_perc_gen1.loc['2019-02-04 16:00:00':'2019-02-04 21:00:00']*100,label='Ge
ax1.plot(load_perc_gen2.loc['2019-02-04 16:00:00':'2019-02-04 21:00:00']*100,label='Ge
ax1.plot(load_perc_gen3.loc['2019-02-04 16:00:00':'2019-02-04 21:00:00']*100,label='Ge
ax1.plot(load_perc_gen4.loc['2019-02-04 16:00:00':'2019-02-04 21:00:00']*100,label='Ge
ax1.plot(load_perc_gen5.loc['2019-02-04 16:00:00':'2019-02-04 21:00:00']*100,label='Ge
ax1.plot(load_perc_gen6.loc['2019-02-04 16:00:00':'2019-02-04 21:00:00']*100,label='Ge
ax1.plot(load_perc_gen7.loc['2019-02-04 16:00:00':'2019-02-04 21:00:00']*100,label='Ge
ax1.plot(load_perc_gen8.loc['2019-02-04 16:00:00':'2019-02-04 21:00:00']*100,label='Ge



ax1.set_ylabel('Load%')
plt.legend(loc='best')
ax1.set_ylim(-10,75)

plt.show()
```

```
<IPython.core.display.Javascript object>
```

```
<IPython.core.display.HTML object>
```

```
In [10]: # Calculating from load% to g/kWh
         fuel_cons_gen1 = (134.22*load_perc_gen1*load_perc_gen8) - (224.44*load_perc_gen1) + 27
         fuel_cons_gen2 = (134.22*load_perc_gen2*load_perc_gen8) - (224.44*load_perc_gen2) + 27
         fuel_cons_gen3 = (134.22*load_perc_gen3*load_perc_gen8) - (224.44*load_perc_gen3) + 27
         fuel_cons_gen4 = (134.22*load_perc_gen4*load_perc_gen8) - (224.44*load_perc_gen4) + 27
         fuel_cons_gen5 = (134.22*load_perc_gen5*load_perc_gen8) - (224.44*load_perc_gen5) + 27
         fuel_cons_gen6 = (134.22*load_perc_gen6*load_perc_gen8) - (224.44*load_perc_gen6) + 27
         fuel_cons_gen7 = (134.22*load_perc_gen7*load_perc_gen8) - (224.44*load_perc_gen7) + 27
         fuel_cons_gen8 = (134.22*load_perc_gen8*load_perc_gen8) - (224.44*load_perc_gen8) + 27

In [11]: # Converting from specific fuel consumption g/kWh to fuel consumption m3/s
         fuel1 = (fuel_cons_gen1/(845*3600*1000))*5760*load_perc_gen1
         fuel2 = (fuel_cons_gen2/(845*3600*1000))*5760*load_perc_gen2
         fuel3 = (fuel_cons_gen3/(845*3600*1000))*5760*load_perc_gen3
         fuel4 = (fuel_cons_gen4/(845*3600*1000))*5760*load_perc_gen4
         fuel5 = (fuel_cons_gen5/(845*3600*1000))*5760*load_perc_gen5
         fuel6 = (fuel_cons_gen6/(845*3600*1000))*5760*load_perc_gen6
         fuel7 = (fuel_cons_gen7/(845*3600*1000))*5760*load_perc_gen7
         fuel8 = (fuel_cons_gen8/(845*3600*1000))*5760*load_perc_gen8

In [12]: # Dataframe with fuel consumption m3/s
         m3s = pd.DataFrame({'m3/s gen1': fuel1, 'm3/s gen2': fuel2, 'm3/s gen3': fuel3, 'm3/s

In [13]: # Fill missing values with forward fill and backfill
         filled_fuel = m3s.ffill().bfill()

In [14]: # Add fuel consumption from all diesel engines
         filled_fuel['Total m3/s']=filled_fuel.sum(axis=1)

In [15]: # Series with fuel consumption m3/s
         total_fuel_sec = filled_fuel['Total m3/s']

In [19]: # Series with fuel consumption m3/h
         fuel_m3_hour = total_fuel_sec * 60 * 60

In [20]: # Sum up fuel consumption per day (m3/day)
         total_fuel_day = total_fuel_sec.resample('1D').sum()
         total_fuel_day.head(5)

Out[20]: 2019-01-23 00:00:00+00:00    26.308882
         2019-01-24 00:00:00+00:00    26.288279
         2019-01-25 00:00:00+00:00    36.405416
         2019-01-26 00:00:00+00:00    29.843364
         2019-01-27 00:00:00+00:00    26.497666
         Freq: D, Name: Total m3/s, dtype: float64
```

In [24]:
```
# Plot fuel consumption m3/day
plt.figure(figsize=(20,5))
plt.plot(total_fuel_day)
plt.title('Fuel cons m3/day')
```

```
<IPython.core.display.Javascript object>
```

```
<IPython.core.display.HTML object>
```

Out[24]:
```
Text(0.5, 1.0, 'Fuel cons m3/day')
```

In [25]:
```
# Sum up fuel consumption per hour
total_fuel_hour = total_fuel_sec.resample('1H').sum()
```

In [26]:
```
# Plot fuel consumption m3/hour
fig=plt.figure(figsize=(10,3))
total_fuel_hour.plot.line(style='-',label='x')
plt.savefig('lineplot.png')
```

```
<IPython.core.display.Javascript object>
```

```
<IPython.core.display.HTML object>
```

```
C:\Users\243512\AppData\Local\Continuum\anaconda3\lib\site-packages\pandas\core\arrays\datetim
  "will drop timezone information.", UserWarning)
```

In [27]:
```
# Plot fuel consumption m3/h
fig=plt.figure(figsize=(10,5))
ax1=fig.add_subplot(111)

p = '2019-04-15 15:16:30'
q = '2019-04-15 15:20:30'

ax1.plot(fuel_m3_hour.loc[p:q],label='Fuel consumption',lw=1,c='teal')

ax1.set_ylabel('m3/h')
plt.legend(loc='best')
ax1.set_ylim(0.85,1.5)

plt.show()

#plt.savefig('FU-case1.png')
#plt.savefig('FU-case2.png')
```

```
<IPython.core.display.Javascript object>


<IPython.core.display.HTML object>
```

```
In [28]: # Plot engine load
         fig=plt.figure(figsize=(10,5))
         ax1=fig.add_subplot(111)

         p = '2019-04-15 15:16:30'
         q = '2019-04-15 15:20:30'

         ax1.plot(load_perc_gen1.loc[p:q]*100,label='DG1',lw=1)
         ax1.plot(load_perc_gen2.loc[p:q]*100,label='DG2',lw=1)
         #ax1.plot(load_perc_gen3.loc[p:q]*100,label='DG3',lw=1)
         #ax1.plot(load_perc_gen4.loc[p:q]*100,label='DG4',lw=1)
         #ax1.plot(load_perc_gen5.loc[p:q]*100,label='DG5',lw=1)
         ax1.plot(load_perc_gen6.loc[p:q]*100,label='DG6',lw=1)
         #ax1.plot(load_perc_gen7.loc[p:q]*100,label='DG7',lw=1)
         #ax1.plot(load_perc_gen8.loc[p:q]*100,label='DG8',lw=1)


         ax1.set_ylabel('Load%')
         plt.legend(loc='best')
         ax1.set_ylim(-10,80)

         plt.show()

         #plt.savefig('LP-case1.png')
         #plt.savefig('LP-case2.png')
```

```
<IPython.core.display.Javascript object>


<IPython.core.display.HTML object>
```

1.0.3 Add data from daily drilling log

```
In [30]: # Load drilling log data and extract input feature "depth"
         time_log = pd.read_csv('drilling_log.csv', index_col='Datetime', parse_dates = True)
         depth = time_log['Depth']
```

1.0.4 Add weather data etc.

```
In [31]: # Load weather and gps data from DataReservoir
         latitude_raw = client.get('7427ec78-8313-46fa-b9b9-67eae32f300a',start = start, end =
         longitude_raw = client.get('21b982f4-262b-4624-b639-0bbb072d9e84',start = start, end =
```

```
current_direction_raw = client.get('52b55145-455a-4c49-b1dc-9e6342ce7c77',start = sta
current_speed_raw = client.get('c9fe90f6-40df-4f6c-b367-331d3d3b410e',start = start, 
draught_raw = client.get('8c655cb2-5909-4519-979b-912f0c1ca6ca',start = start, end = 
wind_direction_raw = client.get('e7661b3c-1c20-46fc-9c9a-a34bbc0f4b68',start = start,
wind_speed_raw = client.get('877e8bcd-bef0-4917-9f05-5874c17f8341',start = start, end
```

In [33]:
```
# Resample to 1 sec and forward fill
latitude_res = latitude_raw.resample('1s').pad()
longitude_res = longitude_raw.resample('1s').pad()
current_direction_res = current_direction_raw.resample('1s').pad()
current_speed_res = current_speed_raw.resample('1s').pad()
draught_res = draught_raw.resample('1s').pad()
wind_direction_res = wind_direction_raw.resample('1s').pad()
wind_speed_res = wind_speed_raw.resample('1s').pad()
```

In [34]:
```
# Make dataframe
df = pd.DataFrame({'Fuel_consumption': fuel_m3_hour, 'Depth in well': depth, 'Latitud
```

In [35]:
```
# Fill missing data with front fill and backfill
df_filled= df.ffill().bfill()
```

In [36]:
```
# Add input features "Day of year" and "Hour of Day"
df_filled['Day'] = df_filled.index.dayofyear
df_filled['Hour'] = df_filled.index.hour
```

In [37]:
```
# Reset index
new_df = df_filled.reset_index()
new_df.head(10)
```

Out[37]:

	index	Fuel_consumption	Depth in well	Latitude	Longitude	Current direction	Current speed	Draught	Wind direction
0	2019-01-23 00:00:06+00:00	1.027309	0.0	1.065338	0.062364	0.648136	0.546649	24.826622	-0.319278
1	2019-01-23 00:00:07+00:00	1.027309	0.0	1.065338	0.062364	0.648136	0.546649	24.826622	-0.319278
2	2019-01-23 00:00:08+00:00	1.028482	0.0	1.065338	0.062364	0.634876	0.530271	24.826885	-0.329021
3	2019-01-23 00:00:09+00:00	1.032443	0.0	1.065338	0.062364	0.618660	0.511536	24.827158	-0.328347
4	2019-01-23 00:00:10+00:00	1.032377	0.0	1.065338	0.062364	0.601338	0.493684	24.827436	-0.332697
5	2019-01-23 00:00:11+00:00	1.029214	0.0	1.065338	0.062364	0.584708	0.479889	24.827719	-0.333125
6	2019-01-23 00:00:12+00:00	1.030181	0.0	1.065338	0.062364	0.571979	0.472463	24.828000	-0.331139
7	2019-01-23 00:00:13+00:00	1.023198	0.0	1.065338					
8	2019-01-23 00:00:14+00:00	1.022963	0.0	1.065338					
9	2019-01-23 00:00:15+00:00	1.028101	0.0	1.065338					

```
7   0.062364          0.567361       0.472444  24.828276       -0.330582
8   0.062364          0.573889       0.479487  24.828543       -0.331332
9   0.062364          0.591850       0.492420  24.828798       -0.329606

   Wind speed  Day  Hour
0   18.522430   23     0
1   18.522430   23     0
2   18.431189   23     0
3   18.374803   23     0
4   18.339280   23     0
5   18.306420   23     0
6   18.287144   23     0
7   18.291555   23     0
8   18.301160   23     0
9   18.321085   23     0
```

In [38]:
```
# Rename index column
new_df.rename(columns={"index": "Datetime"}, inplace=True)
new_df.head(5)
```

Out[38]:
```
                  Datetime  Fuel_consumption  Depth in well  Latitude  \
0 2019-01-23 00:00:06+00:00          1.027309            0.0  1.065338
1 2019-01-23 00:00:07+00:00          1.027309            0.0  1.065338
2 2019-01-23 00:00:08+00:00          1.028482            0.0  1.065338
3 2019-01-23 00:00:09+00:00          1.032443            0.0  1.065338
4 2019-01-23 00:00:10+00:00          1.032377            0.0  1.065338

   Longitude  Current direction  Current speed    Draught  Wind direction  \
0   0.062364           0.648136       0.546649  24.826622       -0.319278
1   0.062364           0.648136       0.546649  24.826622       -0.319278
2   0.062364           0.634876       0.530271  24.826885       -0.329021
3   0.062364           0.618660       0.511536  24.827158       -0.328347
4   0.062364           0.601338       0.493684  24.827436       -0.332697

   Wind speed  Day  Hour
0   18.522430   23     0
1   18.522430   23     0
2   18.431189   23     0
3   18.374803   23     0
4   18.339280   23     0
```

In [ ]:
```
# Save dataframe as CSV file
new_df.to_csv('fuelcons_multivariate_input.csv')
```

MLP regressor

June 10, 2019

1 MLP Regressor and correlation plots

1.0.1 Import necessary packages

In [1]:
```
# Import packages
%matplotlib notebook
import pandas as pd
import matplotlib.pyplot as plt
import numpy as np
import datetime as dt
from matplotlib import style
style.use('ggplot')
from pandas import datetime
import datareservoirio as drio
from pandas.plotting import register_matplotlib_converters
register_matplotlib_converters()
import seaborn as sns
```

1.0.2 Import cleaned data

In [3]:
```
# Load fuel consumption and weather data
df_m = pd.read_csv('fuelcons_multivariate_input.csv', index_col = 'Datetime', usecols=
df_1 = df_m.loc['2019-01-25 16:00:00+00:00':'2019-04-25 16:00:00+00:00']
df_1.head(5)
```

Out[3]:

Datetime	Fuel_consumption	Depth in well	Latitude	Longitude	Current direction	Current speed
2019-01-25 16:00:00+00:00	1.807751	0.0	1.065337	0.062365	0.009081	0.565714
2019-01-25 16:00:01+00:00	1.789441	0.0	1.065337	0.062365	0.011541	0.565834
2019-01-25 16:00:02+00:00	1.752199	0.0	1.065337			
2019-01-25 16:00:03+00:00	1.732183	0.0	1.065337			
2019-01-25 16:00:04+00:00	1.636249	0.0	1.065337			

```
2019-01-25 16:00:02+00:00   0.062365           0.016058       0.567418
2019-01-25 16:00:03+00:00   0.062365           0.020473       0.570278
2019-01-25 16:00:04+00:00   0.062365           0.022767       0.573709

                             Draught  Wind direction  Wind speed  Day  Hour
Datetime
2019-01-25 16:00:00+00:00  25.041110       -0.398286   16.677326   25    16
2019-01-25 16:00:01+00:00  25.041430       -0.396239   16.767210   25    16
2019-01-25 16:00:02+00:00  25.041761       -0.392005   16.899961   25    16
2019-01-25 16:00:03+00:00  25.042097       -0.391867   17.016794   25    16
2019-01-25 16:00:04+00:00  25.042427       -0.390627   17.102295   25    16
```

In [5]:
```
# Load operational codes (one hot encoded)
ops = pd.read_csv('drilling_one_hot_encoded.csv', index_col = 'Datetime',parse_dates=T
df_2 = ops.loc['2019-01-25 16:00:00+00:00':'2019-04-25 16:00:00+00:00']
df_2.head(5)
```

Out[5]:
```
                           1.0  2.0  3.0  5.0  6.0  7.0  8.0  11.0  12.0  \
Datetime
2019-01-25 16:00:00+00:00    0    0    0    0    0    0    0     0     0
2019-01-25 16:00:01+00:00    0    0    0    0    0    0    0     0     0
2019-01-25 16:00:02+00:00    0    0    0    0    0    0    0     0     0
2019-01-25 16:00:03+00:00    0    0    0    0    0    0    0     0     0
2019-01-25 16:00:04+00:00    0    0    0    0    0    0    0     0     0

                           13.0  ...  25.0  26.0  27.0  31.0  32.0  34.0  \
Datetime                         ...
2019-01-25 16:00:00+00:00     0  ...     0     0     0     0     0     0
2019-01-25 16:00:01+00:00     0  ...     0     0     0     0     0     0
2019-01-25 16:00:02+00:00     0  ...     0     0     0     0     0     0
2019-01-25 16:00:03+00:00     0  ...     0     0     0     0     0     0
2019-01-25 16:00:04+00:00     0  ...     0     0     0     0     0     0

                           35.0  38.0  41.0  43.0
Datetime
2019-01-25 16:00:00+00:00     0     0     0     1
2019-01-25 16:00:01+00:00     0     0     0     1
2019-01-25 16:00:02+00:00     0     0     0     1
2019-01-25 16:00:03+00:00     0     0     0     1
2019-01-25 16:00:04+00:00     0     0     0     1

[5 rows x 26 columns]
```

In [6]:
```
# Add the two dataframes together
df_col = pd.concat([df_1,df_2], axis=1)
```

In [7]:
```
# Convert to UNIX time
df = df_col.reset_index()
```

```
df['Datetime'] = pd.DatetimeIndex(df['Datetime']).astype(np.int64) // 1000000000
df.head(5)
```

Out[7]:

	Datetime	Fuel_consumption	Depth in well	Latitude	Longitude	Current direction	Current speed	Draught	Wind direction	Wind speed	...	25.0	26.0	27.0	31.0	32.0	34.0	35.0	38.0	41.0	43.0
0	1548432000	1.807751	0.0	1.065337	0.062365	0.009081	0.565714	25.041110	-0.398286	16.677326	...	0	0	0	0	0	0	0	0	0	1
1	1548432001	1.789441	0.0	1.065337	0.062365	0.011541	0.565834	25.041430	-0.396239	16.767210	...	0	0	0	0	0	0	0	0	0	1
2	1548432002	1.752199	0.0	1.065337	0.062365	0.016058	0.567418	25.041761	-0.392005	16.899961	...	0	0	0	0	0	0	0	0	0	1
3	1548432003	1.732183	0.0	1.065337	0.062365	0.020473	0.570278	25.042097	-0.391867	17.016794	...	0	0	0	0	0	0	0	0	0	1
4	1548432004	1.636249	0.0	1.065337	0.062365	0.022767	0.573709	25.042427	-0.390627	17.102295	...	0	0	0	0	0	0	0	0	0	1

[5 rows x 38 columns]

In [8]:
```
# Description of all features
df.describe().transpose()
```

Out[8]:

	count	mean	std	min
Datetime	7776001.0	1.552320e+09	2.244738e+06	1.548432e+09
Fuel_consumption	7776001.0	1.115234e+00	2.637618e-01	5.159828e-01
Depth in well	7776001.0	6.951707e+02	1.068558e+03	0.000000e+00
Latitude	7776001.0	1.065330e+00	1.919788e-06	1.065322e+00
Longitude	7776001.0	6.237767e-02	4.691119e-06	6.235286e-02
Current direction	7776001.0	7.372725e-01	1.473847e+00	-3.141592e+00
Current speed	7776001.0	6.755604e-01	1.936276e-01	1.266806e-02
Draught	7776001.0	2.490957e+01	3.937708e-01	2.091119e+01
Wind direction	7776001.0	-2.096475e-01	1.593127e+00	-3.141592e+00
Wind speed	7776001.0	9.188779e+00	4.950325e+00	3.136683e-03
Day	7776001.0	7.016667e+01	2.598344e+01	2.500000e+01
Hour	7776001.0	1.150000e+01	6.922187e+00	0.000000e+00
1.0	7776001.0	3.742283e-03	6.105964e-02	0.000000e+00
2.0	7776001.0	6.863425e-02	2.528312e-01	0.000000e+00
3.0	7776001.0	9.259258e-04	3.041494e-02	0.000000e+00
5.0	7776001.0	5.124228e-02	2.204915e-01	0.000000e+00
6.0	7776001.0	2.303935e-01	4.210847e-01	0.000000e+00
7.0	7776001.0	8.738438e-02	2.823975e-01	0.000000e+00

8.0	7776001.0	2.777777e-03	5.263138e-02	0.000000e+00
11.0	7776001.0	9.386573e-02	2.916418e-01	0.000000e+00
12.0	7776001.0	5.635802e-02	2.306118e-01	0.000000e+00
13.0	7776001.0	3.641975e-02	1.873322e-01	0.000000e+00
14.0	7776001.0	5.995370e-02	2.374010e-01	0.000000e+00
15.0	7776001.0	1.898148e-02	1.364595e-01	0.000000e+00
19.0	7776001.0	1.983024e-02	1.394167e-01	0.000000e+00
21.0	7776001.0	2.700617e-04	1.643134e-02	0.000000e+00
23.0	7776001.0	1.226852e-02	1.100818e-01	0.000000e+00
24.0	7776001.0	7.175925e-03	8.440635e-02	0.000000e+00
25.0	7776001.0	4.233024e-02	2.013415e-01	0.000000e+00
26.0	7776001.0	3.009259e-03	5.477411e-02	0.000000e+00
27.0	7776001.0	5.787036e-04	2.404930e-02	0.000000e+00
31.0	7776001.0	6.496913e-02	2.464714e-01	0.000000e+00
32.0	7776001.0	6.172839e-04	2.483753e-02	0.000000e+00
34.0	7776001.0	2.314815e-04	1.521275e-02	0.000000e+00
35.0	7776001.0	8.641974e-03	9.255966e-02	0.000000e+00
38.0	7776001.0	1.651234e-02	1.274350e-01	0.000000e+00
41.0	7776001.0	1.643518e-02	1.271419e-01	0.000000e+00
43.0	7776001.0	9.645060e-02	2.952082e-01	0.000000e+00

	25%	50%	75%	max
Datetime	1.550376e+09	1.552320e+09	1.554264e+09	1.556208e+09
Fuel_consumption	9.696400e-01	1.004411e+00	1.143648e+00	4.401226e+00
Depth in well	0.000000e+00	3.510000e+02	9.210000e+02	9.999000e+03
Latitude	1.065329e+00	1.065330e+00	1.065330e+00	1.065338e+00
Longitude	6.237726e-02	6.237835e-02	6.237876e-02	6.239804e-02
Current direction	5.012040e-01	1.010098e+00	1.495219e+00	3.141592e+00
Current speed	5.551385e-01	6.794196e-01	8.066642e-01	1.517747e+00
Draught	2.494172e+01	2.497944e+01	2.500768e+01	2.566121e+01
Wind direction	-1.101734e+00	-1.407744e-01	6.977107e-01	3.141592e+00
Wind speed	5.378816e+00	8.806188e+00	1.268733e+01	3.010146e+01
Day	4.800000e+01	7.000000e+01	9.300000e+01	1.150000e+02
Hour	6.000000e+00	1.200000e+01	1.700000e+01	2.300000e+01
1.0	0.000000e+00	0.000000e+00	0.000000e+00	1.000000e+00
2.0	0.000000e+00	0.000000e+00	0.000000e+00	1.000000e+00
3.0	0.000000e+00	0.000000e+00	0.000000e+00	1.000000e+00
5.0	0.000000e+00	0.000000e+00	0.000000e+00	1.000000e+00
6.0	0.000000e+00	0.000000e+00	0.000000e+00	1.000000e+00
7.0	0.000000e+00	0.000000e+00	0.000000e+00	1.000000e+00
8.0	0.000000e+00	0.000000e+00	0.000000e+00	1.000000e+00
11.0	0.000000e+00	0.000000e+00	0.000000e+00	1.000000e+00
12.0	0.000000e+00	0.000000e+00	0.000000e+00	1.000000e+00
13.0	0.000000e+00	0.000000e+00	0.000000e+00	1.000000e+00
14.0	0.000000e+00	0.000000e+00	0.000000e+00	1.000000e+00
15.0	0.000000e+00	0.000000e+00	0.000000e+00	1.000000e+00
19.0	0.000000e+00	0.000000e+00	0.000000e+00	1.000000e+00
21.0	0.000000e+00	0.000000e+00	0.000000e+00	1.000000e+00

```
23.0                0.000000e+00  0.000000e+00  0.000000e+00  1.000000e+00
24.0                0.000000e+00  0.000000e+00  0.000000e+00  1.000000e+00
25.0                0.000000e+00  0.000000e+00  0.000000e+00  1.000000e+00
26.0                0.000000e+00  0.000000e+00  0.000000e+00  1.000000e+00
27.0                0.000000e+00  0.000000e+00  0.000000e+00  1.000000e+00
31.0                0.000000e+00  0.000000e+00  0.000000e+00  1.000000e+00
32.0                0.000000e+00  0.000000e+00  0.000000e+00  1.000000e+00
34.0                0.000000e+00  0.000000e+00  0.000000e+00  1.000000e+00
35.0                0.000000e+00  0.000000e+00  0.000000e+00  1.000000e+00
38.0                0.000000e+00  0.000000e+00  0.000000e+00  1.000000e+00
41.0                0.000000e+00  0.000000e+00  0.000000e+00  1.000000e+00
43.0                0.000000e+00  0.000000e+00  0.000000e+00  1.000000e+00
```

1.0.3 Correlation plots

In [9]:
```
# Make correlation matrix with default Pearson correlations
corr_matrix = df.corr()
```

In [10]:
```
# Visualize correlation matrix
corr_matrix.style.background_gradient(cmap='coolwarm')
```

Out[10]: <pandas.io.formats.style.Styler at 0x18e2bc807b8>

In [11]:
```
# Sorted list of absoulte correlations with regards to fuel consumption
abs_corr = np.abs(corr_matrix.Fuel_consumption)
abs_corr_df= pd.DataFrame(abs_corr)
abs_corr_df.sort_values(["Fuel_consumption"], ascending = False, inplace = True)
abs_corr_df
```

Out[11]:

	Fuel_consumption
Fuel_consumption	1.000000
2.0	0.365264
Wind speed	0.339310
Current speed	0.212641
23.0	0.203590
Depth in well	0.158404
Draught	0.146840
Day	0.145651
Datetime	0.145293
11.0	0.128498
6.0	0.098279
7.0	0.075374
14.0	0.069457
Current direction	0.067554
41.0	0.065259
5.0	0.061500
24.0	0.059048
25.0	0.055078
31.0	0.053505

```
19.0                    0.040331
3.0                     0.034471
Hour                    0.033431
35.0                    0.032734
13.0                    0.032709
26.0                    0.026516
15.0                    0.025940
43.0                    0.025675
21.0                    0.024502
Longitude               0.021967
38.0                    0.019811
1.0                     0.016067
Latitude                0.015693
32.0                    0.014073
8.0                     0.013893
Wind direction          0.013844
27.0                    0.013524
12.0                    0.009885
34.0                    0.006467
```

In [13]:
```
# Define list of all features for the ML model
all_features = list(abs_corr_df.index[1:])
```

1.0.4 Preprocessing

In [14]:
```
# Import necessary packages
from sklearn.preprocessing import StandardScaler
from sklearn import metrics
from sklearn.model_selection import train_test_split
from sklearn.neural_network import MLPRegressor
```

In [15]:
```
# Creating series of target variable and input features (y:target variable, X: input
y = df['Fuel_consumption'].values
X = df[all_features].values

# Splitting the data into training and test set (test set is 20%)
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.20, random_state
```

In [16]:
```
scaler = StandardScaler()
scaler.fit(X_train)
X_train = scaler.transform(X_train)
X_test = scaler.transform(X_test)
```

1.0.5 MLP regressor with SGD solver

In [17]:
```
# Building the ML model
ml_model_sgd = MLPRegressor(random_state=0, max_iter=40, hidden_layer_sizes=(38,38,38
```

In [18]:
```
# Fitting the model with training data
trained_model_sgd = ml_model_sgd.fit(X_train, y_train)
```

```
Iteration 1, loss = 0.01461873
Iteration 2, loss = 0.00934317
Iteration 3, loss = 0.00805522
Iteration 4, loss = 0.00735338
Iteration 5, loss = 0.00690187
Iteration 6, loss = 0.00658547
Iteration 7, loss = 0.00633801
Iteration 8, loss = 0.00614161
Iteration 9, loss = 0.00596468
Iteration 10, loss = 0.00580324
Iteration 11, loss = 0.00566519
Iteration 12, loss = 0.00554885
Iteration 13, loss = 0.00544435
Iteration 14, loss = 0.00534747
Iteration 15, loss = 0.00525742
Iteration 16, loss = 0.00517738
Iteration 17, loss = 0.00510443
Iteration 18, loss = 0.00503578
Iteration 19, loss = 0.00497408
Iteration 20, loss = 0.00491762
Iteration 21, loss = 0.00486238
Iteration 22, loss = 0.00481067
Iteration 23, loss = 0.00476272
Iteration 24, loss = 0.00471828
Training loss did not improve more than tol=0.000100 for 10 consecutive epochs. Setting learni
Iteration 25, loss = 0.00466795
Iteration 26, loss = 0.00465899
Iteration 27, loss = 0.00465073
Iteration 28, loss = 0.00464246
Iteration 29, loss = 0.00463448
Iteration 30, loss = 0.00462635
Iteration 31, loss = 0.00461852
Iteration 32, loss = 0.00461094
Iteration 33, loss = 0.00460335
Iteration 34, loss = 0.00459583
Iteration 35, loss = 0.00458876
Training loss did not improve more than tol=0.000100 for 10 consecutive epochs. Setting learni
Iteration 36, loss = 0.00457933
Iteration 37, loss = 0.00457769
Iteration 38, loss = 0.00457636
Iteration 39, loss = 0.00457489
Iteration 40, loss = 0.00457347


C:\Users\243512\AppData\Local\Continuum\anaconda3\lib\site-packages\sklearn\neural_network\mult
  % self.max_iter, ConvergenceWarning)
```

In [21]: *#Predicting the test data using the trained model*

```
predictions_sgd = trained_model_sgd.predict(X_test)

# Printing MAE, MSE and RMSE
print('Mean Absolute Error:', metrics.mean_absolute_error(y_test, predictions_sgd))
print('Mean Square Error:', metrics.mean_squared_error(y_test, predictions_sgd))
print('Root Mean Square Error:', np.sqrt(metrics.mean_squared_error(y_test, predictio
```

```
Mean Absolute Error: 0.057823752511413876
Mean Square Error: 0.009089942226348171
Root Mean Square Error: 0.09534118850920714
```

1.0.6 MLP regressor with Adam solver

```
In [22]: # Building the ML model
         ml_model_ada = MLPRegressor(random_state=0, max_iter=40, hidden_layer_sizes=(38,38,38
```

```
In [23]: # Fitting the model with training data
         trained_model_ada = ml_model_ada.fit(X_train, y_train)
```

```
Iteration 1, loss = 0.00675147
Iteration 2, loss = 0.00417168
Iteration 3, loss = 0.00384339
Iteration 4, loss = 0.00367566
Iteration 5, loss = 0.00356651
Iteration 6, loss = 0.00348342
Iteration 7, loss = 0.00342432
Iteration 8, loss = 0.00338781
Iteration 9, loss = 0.00335227
Iteration 10, loss = 0.00332256
Iteration 11, loss = 0.00329866
Iteration 12, loss = 0.00328407
Iteration 13, loss = 0.00327366
Iteration 14, loss = 0.00325659
Iteration 15, loss = 0.00324721
Iteration 16, loss = 0.00323755
Training loss did not improve more than tol=0.000100 for 10 consecutive epochs. Stopping.
```

```
In [25]: #Predicting the test data using the trained model
         predictions_ada = trained_model_ada.predict(X_test)

         print('Mean Absolute Error:', metrics.mean_absolute_error(y_test, predictions_ada))
         print('Mean Square Error:', metrics.mean_squared_error(y_test, predictions_ada))
         print('Root Mean Square Error:', np.sqrt(metrics.mean_squared_error(y_test, predictio
```

```
Mean Absolute Error: 0.04641723209014779
Mean Square Error: 0.005927502138123705
Root Mean Square Error: 0.07699027300980107
```

1.0.7 Test set and training set accuracy for different learning rates

In [26]:
```
# Checking different learning rates
ml_model_ada0 = MLPRegressor(random_state=0, max_iter=40, hidden_layer_sizes=(38,38,3
ml_model_ada1 = MLPRegressor(random_state=0, max_iter=40, hidden_layer_sizes=(38,38,3
ml_model_ada2 = MLPRegressor(random_state=0, max_iter=40, hidden_layer_sizes=(38,38,3
ml_model_ada3 = MLPRegressor(random_state=0, max_iter=40, hidden_layer_sizes=(38,38,3
```

In [27]:
```
# Fitting with training data
ml_model_ada0.fit(X_train, y_train)
ml_model_ada1.fit(X_train, y_train)
ml_model_ada2.fit(X_train, y_train)
ml_model_ada3.fit(X_train, y_train)
```

Out[27]:
```
MLPRegressor(activation='relu', alpha=0.0001, batch_size='auto', beta_1=0.9,
       beta_2=0.999, early_stopping=False, epsilon=1e-08,
       hidden_layer_sizes=(38, 38, 38), learning_rate='constant',
       learning_rate_init=1e-05, max_iter=40, momentum=0.9,
       n_iter_no_change=10, nesterovs_momentum=True, power_t=0.5,
       random_state=0, shuffle=True, solver='adam', tol=0.0001,
       validation_fraction=0.1, verbose=False, warm_start=False)
```

In [28]:
```
# Set up empty lists
training_accuracy0 = []
test_accuracy0 = []

training_accuracy1 = []
test_accuracy1 = []

training_accuracy2 = []
test_accuracy2 = []

training_accuracy3 = []
test_accuracy3 = []
```

In [33]:
```
# Fill empty lists with R2 score
training_accuracy0.append(ml_model_ada0.score(X_train,y_train))
test_accuracy0.append(ml_model_ada0.score(X_test,y_test))

training_accuracy1.append(ml_model_ada1.score(X_train,y_train))
test_accuracy1.append(ml_model_ada1.score(X_test,y_test))

training_accuracy2.append(ml_model_ada2.score(X_train,y_train))
test_accuracy2.append(ml_model_ada2.score(X_test,y_test))

training_accuracy3.append(ml_model_ada3.score(X_train,y_train))
test_accuracy3.append(ml_model_ada3.score(X_test,y_test))
```

In [34]:
```
# R2 score for training and test set, learning rate = 0.01
print(training_accuracy0)
print(test_accuracy0)
```

```
[0.8942763925447031]
[0.8941004656407224]
```

```
In [35]: # R2 score for training and test set, learning rate = 0.001
         print(training_accuracy1)
         print(test_accuracy1)
```

```
[0.9152322238797699, 0.9152322238797699]
[0.9149412411754964, 0.9149412411754964]
```

```
In [36]: # R2 score for training and test set, learning rate = 0.0001
         print(training_accuracy2)
         print(test_accuracy2)
```

```
[0.8954236587437729, 0.8954236587437729]
[0.895389741492984, 0.895389741492984]
```

```
In [37]: # R2 score for training and test set, learning rate = 0.00001
         print(training_accuracy3)
         print(test_accuracy3)
```

```
[0.8571607409345383, 0.8571607409345383]
[0.8573300330934351, 0.8573300330934351]
```

1.0.8 Performance evaluation

```
In [38]: # Making a function for the x = y perfect relationship
         x_line=[0.7,4]
         y_line=[0.7,4]
```

```
In [41]: # Scatter plot of real vs predicted values, and dotted line for linear relationship
         plt.figure(figsize=(6,6))
         plt.scatter(y_test,predictions_ada,marker='o',s=1)
         plt.xlabel('Real fuel consumption values')
         plt.ylabel('Predicted fuel consumption values')
         plt.plot(x_line,y_line,'--',color='black')
         plt.title(' ')
         plt.savefig('predreal.png')
```

```
<IPython.core.display.Javascript object>
```

```
<IPython.core.display.HTML object>
```

1.0.9 Comparing actual vs. predicted consumption

In [42]:
```
# Creating a dataframe with two columns(real consumption, predicted consumption)
dataframe= pd.DataFrame([y_test, predictions_ada]).T
dataframe.columns=['realConsumption', 'predictedConsumption']
dataframe.head(5)
```

Out[42]:

	realConsumption	predictedConsumption
0	1.170577	1.189542
1	1.010247	0.928975
2	1.026299	0.983982
3	0.948860	0.974437
4	0.988064	0.993091

In [43]:
```
# Residual error is the difference between real and predicted consumption
Residual_Errors = dataframe.realConsumption - dataframe.predictedConsumption
```

In [44]:
```
Residual_Errors.describe()
```

Out[44]:
```
count    1.555201e+06
mean    -5.335377e-03
std      7.680521e-02
min     -1.050939e+00
25%     -3.503352e-02
50%     -8.241588e-03
75%      1.970077e-02
max      2.009050e+00
dtype: float64
```

In [45]:
```
plt.figure(figsize=(6,6))
Residual_Errors.plot(kind='kde')
plt.savefig('density.png')
```

```
<IPython.core.display.Javascript object>


<IPython.core.display.HTML object>
```

1.0.10 Testing the model on data outside the training set

In [46]:
```
# Load data and combine in a new dataframe
df_testing1 = df_m.loc['2019-04-25 16:00:00+00:00':'2019-04-28 14:00:00+00:00']
df_testing2 = ops.loc['2019-04-25 16:00:00+00:00':'2019-04-28 14:00:00+00:00']
df_col_testing = pd.concat([df_testing1,df_testing2], axis=1)
```

In [47]:
```
# Set index
df_col_testing.index = pd.to_datetime(df_col_testing.index)
```

In [48]:
```
# Resample to one hour
df_testing_hour = df_col_testing.resample('1H').pad()
```

```
In [49]: # Convert to UNIX time
         df_testing_hour = df_testing_hour.reset_index()
         df_testing_hour['Datetime'] = pd.DatetimeIndex(df_testing_hour['Datetime']).astype(np

In [50]: # Make dataframe for input features and target variable
         y_testing = df_testing_hour['Fuel_consumption'].values
         X_testing = df_testing_hour[all_features].values

In [51]: # Feature scaling
         scaler_testing = StandardScaler()
         scaler_testing.fit(X_testing)
         X_testing = scaler.transform(X_testing)

In [52]: # Make predictions on the new input features
         predictions_testing = trained_model_ada.predict(X_testing)

In [53]: # Plot actual values vs predicted values for this data set
         fig=plt.figure(figsize=(15,5))
         ax1=fig.add_subplot(111)

         ax1.plot(y_testing,label='Actual',lw=0.5)
         ax1.plot(predictions_testing,label='Predicted',lw=0.5)

         ax1.set_ylabel('Fuel consumption [m3/h]')
         plt.legend(loc='best')
         ax1.set_ylim(0.80,1.45)

         plt.show()

         plt.savefig('predactual.png')
```

```
<IPython.core.display.Javascript object>


<IPython.core.display.HTML object>
```

Power consumption and correlation plots

June 10, 2019

1 Power consumption and correlation plots

1.0.1 Import necessary packages

In [1]:
```
# Import packages
%matplotlib notebook
import pandas as pd
import matplotlib.pylab as plt
import numpy as np
import datetime as dt
from matplotlib import style
style.use('ggplot')
from pandas import datetime
import datareservoirio as drio
from pandas.plotting import register_matplotlib_converters
register_matplotlib_converters()
```

In [2]:
```
# Define the date/time format
def parser(x):
    return datetime.strptime(x, '%Y-%m-%d %H:%M:%S.%f')
```

In [3]:
```
# Authenticate access to DataReservoir
auth = drio.Authenticator()
```

```
Authentication from previous session still valid.
```

In [4]:
```
client = drio.Client(auth, cache_opt={'max_size': 128*1024})
```

In [5]:
```
# Set start and end date for time series
start='2019-01-25 16:00:00'
end='2019-04-25 16:00:00'
```

2 Generator

In [6]:
```
# Load raw data from DataReservoir
incomer_gen1_pwr_raw = client.get('8d799c0e-3c93-4e11-8a5f-268ba991c0b5', start=start,
```

```
incomer_gen2_pwr_raw = client.get('289f8ab1-6982-47af-803e-2628145ba4ed', start=start,
incomer_gen3_pwr_raw = client.get('355f976b-1ed0-4337-956c-fdd51d9b93ab', start=start,
incomer_gen4_pwr_raw = client.get('607ffd49-916b-4ea9-a971-114e3a25df27', start=start,
incomer_gen5_pwr_raw = client.get('2b186ec6-254a-42cf-be5c-242c2d8c7588', start=start,
incomer_gen6_pwr_raw = client.get('c570b34c-9fb2-4f87-a62d-70dc6d19d0b7', start=start,
incomer_gen7_pwr_raw = client.get('1203cc00-c8b7-496c-b604-8f145f06cef7', start=start,
incomer_gen8_pwr_raw = client.get('04d1a3c6-8bdd-47ff-af4e-ae099173643d', start=start,
```

In [7]:
```
# Resample to 1s
incomer_gen1_pwr_res = incomer_gen1_pwr_raw.resample('1s').pad()
incomer_gen2_pwr_res = incomer_gen2_pwr_raw.resample('1s').pad()
incomer_gen3_pwr_res = incomer_gen3_pwr_raw.resample('1s').pad()
incomer_gen4_pwr_res = incomer_gen4_pwr_raw.resample('1s').pad()
incomer_gen5_pwr_res = incomer_gen5_pwr_raw.resample('1s').pad()
incomer_gen6_pwr_res = incomer_gen6_pwr_raw.resample('1s').pad()
incomer_gen7_pwr_res = incomer_gen7_pwr_raw.resample('1s').pad()
incomer_gen8_pwr_res = incomer_gen8_pwr_raw.resample('1s').pad()
```

In [10]:
```
# Make dataframe and calculate sum of total power
gen = pd.DataFrame({'Gen A': incomer_gen1_pwr_res, 'Gen B': incomer_gen2_pwr_res, 'Ge
gen_filled = gen.ffill().bfill()

gen_filled['Total power']=gen_filled.sum(axis=1)

total_gen = gen_filled['Total power']
```

3 Distribution (marine, drilling utilities, HVAC)

In [11]:
```
# Load raw data from DataReservoir, drilling utilities:
drill13_raw = client.get('974e5070-8450-4b74-81d4-6c0917a0a9b1', start=start, end= en
drill23_raw = client.get('698672c9-de9d-4ca2-b936-30439c537600', start=start, end= en
drill33_raw = client.get('74435696-4263-4098-819f-91d0b2eb1b66', start=start, end= en
drill43_raw = client.get('acc525a6-1985-4a87-947f-d64d00e67afb', start=start, end= en

# Load raw data from DataReservoir, HVAC consumers:
hvac14_raw  = client.get('a1eb0078-67cd-43ed-a87d-29d1a9b25a6b', start=start, end= en
hvac15_raw = client.get('1b283686-97c9-4486-803f-40f76c9818a2', start=start, end= end
hvac24_raw = client.get('2e0c3c2d-5068-4d5b-a4bf-e958e28c8f45', start=start, end= end
hvac34_raw = client.get('687f8e6a-3b4b-4b0b-a5ee-a16240b7dfea', start=start, end= end
hvac44_raw = client.get('123366d1-5690-46e3-9b37-f5bb771815b0', start=start, end= end

# Load raw data from DataReservoir, marine utilities including column loads (mud tank
marine11_raw = client.get('0650c3f2-bd35-4bf5-b4e5-633937f1da7d', start=start, end= en
marine12_raw = client.get('18962a0a-a5a4-48a9-8723-5eb65607b29c', start=start, end= en
marine21_raw = client.get('38f87491-ee78-4948-8cf7-1a3449cd727c', start=start, end= en
marine22_raw = client.get('62354629-fb82-4ca2-82e6-a2b333c73ab2', start=start, end= en
marine31_raw = client.get('bcc8edf2-e081-42c8-9952-6e98b65c2d91', start=start, end= en
marine32_raw = client.get('1ef93cf1-2a04-412b-8e1d-92d7c4ff4f7a', start=start, end= en
```

```
marine41_raw = client.get('b32e327e-3321-4d79-9669-ed392af4dc48', start=start, end= en
marine42_raw = client.get('4192b518-7582-4a96-a03c-dca78b6baad8', start=start, end= en
```

In [12]:
```
# Resample to 1s
drill13_res = drill13_raw.resample('1s').pad()
drill23_res = drill23_raw.resample('1s').pad()
drill33_res = drill33_raw.resample('1s').pad()
drill43_res = drill43_raw.resample('1s').pad()

hvac14_res = hvac14_raw.resample('1s').pad()
hvac15_res = hvac15_raw.resample('1s').pad()
hvac24_res = hvac24_raw.resample('1s').pad()
hvac34_res = hvac34_raw.resample('1s').pad()
hvac44_res = hvac44_raw.resample('1s').pad()

marine11_res = marine11_raw.resample('1s').pad()
marine12_res = marine12_raw.resample('1s').pad()
marine21_res = marine21_raw.resample('1s').pad()
marine22_res = marine22_raw.resample('1s').pad()
marine31_res = marine31_raw.resample('1s').pad()
marine32_res = marine32_raw.resample('1s').pad()
marine41_res = marine41_raw.resample('1s').pad()
marine42_res = marine42_raw.resample('1s').pad()
```

In [13]:
```
# Make dataframe and calculate sum of total power

drill1 = pd.DataFrame({'Drill13': drill13_res, 'Drill23': drill23_res, 'Drill33': dri
drill_filled = drill1.ffill().bfill()

drill_filled['Total power']=drill_filled.sum(axis=1)

drill_ut = drill_filled['Total power']*690*1.732*0.95/1000
```

In [14]:
```
# Make dataframe and calculate sum of total power

hvac1 = pd.DataFrame({'HVAC14': hvac14_res, 'HVAC15': hvac15_res, 'HVAC34': hvac34_re
hvac_filled = hvac1.ffill().bfill()

hvac_filled['Total power']=hvac_filled.sum(axis=1)

hvac = hvac_filled['Total power']*690*1.732*0.95/1000
```

In [15]:
```
# Make dataframe and calculate sum of total power

marine1 = pd.DataFrame({'Marine11': marine11_res, 'Marine12': marine12_res, 'Marine21
marine_filled = marine1.ffill().bfill()

marine_filled['Total power']=marine_filled.sum(axis=1)
```

```
marine = marine_filled['Total power']*690*1.732*0.95/1000
```

In [16]:
```
# Calculate total power for distribution (drilling utility, hvac and marine)

total_dist_sum = drill_ut + hvac + marine
```

4 Drilling

In [17]:
```
# Load raw data from DataReservoir
drillA_raw = client.get('ed2dc553-4dde-44f8-a01c-005d2d26edd5', start=start, end= end)
drillB_raw = client.get('a654a15e-ac8f-474e-87ad-f908ee4867ae', start=start, end= end)
drillC_raw = client.get('827848ba-a13b-40e1-922e-24eba264ddd1', start=start, end= end)
drillD_raw = client.get('f4741913-6689-4629-a498-b10e8dccad25', start=start, end= end)
```

In [18]:
```
# Resample to 1s
drillA_res = drillA_raw.resample('1s').pad()
drillB_res = drillB_raw.resample('1s').pad()
drillC_res = drillC_raw.resample('1s').pad()
drillD_res = drillD_raw.resample('1s').pad()
```

In [19]:
```
# Make dataframe and calculate sum of total power

drill = pd.DataFrame({'Drill A': drillA_res, 'Drill B': drillB_res, 'Drill C': drillC_
drill_filled = drill.ffill().bfill()

drill_filled['Total power']=drill_filled.sum(axis=1)

total_drill = drill_filled['Total power']
```

5 Thrusters

In [20]:
```
# Load raw data from DataReservoir
thrA_raw = client.get('4340d9cc-49ba-4271-afbd-c5ce7a21bac4', start=start, end= end)
thrB_raw = client.get('e33b4f4a-0fe5-4a57-a7cc-cc25cfe8d665', start=start, end= end)
thrC_raw = client.get('f81f31d6-8ece-4f2f-8d8e-ac84b9f86780', start=start, end= end)
thrD_raw = client.get('a965b9f6-eee7-450a-a1fb-ea9b8dd4ff9e', start=start, end= end)
thrE_raw = client.get('6b51198a-37eb-4e73-b3ea-60e6e84ec182', start=start, end= end)
thrF_raw = client.get('701f5b8c-562f-4679-99c0-9834ce49665a', start=start, end= end)
thrG_raw = client.get('2e47d7ed-53ed-4d81-aa16-f883d01582b3', start=start, end= end)
thrH_raw = client.get('be304853-cfc6-4e43-a020-dd5be7791f87', start=start, end= end)
```

In [21]:
```
# Resample to 1s
thrA_res = thrA_raw.resample('1s').pad()
thrB_res = thrB_raw.resample('1s').pad()
thrC_res = thrC_raw.resample('1s').pad()
thrD_res = thrD_raw.resample('1s').pad()
```

```
thrE_res = thrE_raw.resample('1s').pad()
thrF_res = thrF_raw.resample('1s').pad()
thrG_res = thrG_raw.resample('1s').pad()
thrH_res = thrH_raw.resample('1s').pad()
```

In [22]:
```
# Make dataframe and calculate sum of total power

thr = pd.DataFrame({'Thruster A': thrA_res, 'Thruster B': thrB_res, 'Thruster C': thr(
thr_filled = thr.ffill().bfill()

thr_filled['Total power']=thr_filled.sum(axis=1)

total_thr = thr_filled['Total power']
```

In [23]:
```
# Remove negative values (set negative values to 0)
num = total_thr._get_numeric_data()

num[num < 0] = 0
```

6 Total power consumption

In [24]:
```
# Total consumption (Drilling, thrusters, distribution)
total_cons = total_drill + total_thr + total_dist_sum
```

In [25]:
```
# Difference between generated and consumed power
residual_consgen = total_gen - total_cons
```

In [26]:
```
# Plot total consumed vs generated power
fig=plt.figure(figsize=(12,3))
ax1=fig.add_subplot(111)

p = start
q = end

ax1.plot(total_cons.loc[p:q], label='Total power consumption',lw=0.5,c='mediumseagreer
ax1.plot(total_gen.loc[p:q],label='Total generated power',lw=0.5,c='gray',linestyle='-
ax1.plot(residual_consgen.loc[p:q],label='Loss',lw=0.5,c='orchid')

ax1.set_ylabel('kW')
plt.legend(loc='best')
ax1.set_ylim(-4000,22000)

plt.show()

#plt.savefig('residuals.png')
#plt.savefig('CG-case1.png')
#plt.savefig('CG-case2.png')
```

```
<IPython.core.display.Javascript object>


<IPython.core.display.HTML object>


In [27]: # Mean efficiency (consumed vs. generated)
         eff = total_cons / total_gen
         eff.mean()

Out[27]: 0.9244692227155703

In [28]: # Pie plot of the power consumption
         power_mean = pd.DataFrame(
             {' ': [drill_ut.mean(), total_drill.mean() , marine.mean(), abs(total_thr.mean())
              'Max Power': [drill_ut.max(), total_drill.max() , marine.max(), total_thr.max(),h
              index=['Drilling Utility', 'Drilling VFD', 'Marine Utility', 'Thruster VFD', 'HV
         power_mean.plot.pie(y=' ', labels=power_mean.index, figsize=(10,10), autopct='%1.1f%%
         plt.savefig('pieplot.png')

<IPython.core.display.Javascript object>


<IPython.core.display.HTML object>


In [30]: #Plot power consumption in line plot
         fig=plt.figure(figsize=(12,3))
         ax1=fig.add_subplot(111)

         start = '2019-01-25 16:00:00'
         stop = '2019-04-25 16:00:00'

         xlim=[pd.Timestamp(start), pd.Timestamp(stop)]

         ax1.plot(hvac,label='HVAC',lw=0.5)
         #ax1.plot(drill_ut,label='Drilling utilities',lw=0.5)
         #ax1.plot(marine,label='Marine',lw=0.5)
         #ax1.plot(total_drill,label='Drilling VFD',lw=0.5)
         #ax1.plot(total_thr,label='Thrusters',lw=1)
         #ax1.plot(total_cons,label='Total consumption',lw=0.5)

         ax1.set_xlim(left=start,right=stop)
         ax1.set_ylabel('kW')
         plt.legend(loc='best')
         ax1.set_ylim(-500,3000)

         plt.show()
         #plt.savefig('HVAC.png')
```

```
<IPython.core.display.Javascript object>
```

```
<IPython.core.display.HTML object>
```

6.0.1 Feature correlation between each group of consumers

```
In [34]: # Make dataframe
         df1 = pd.DataFrame({'Drilling_VFD': total_drill, 'Thruster_VFD': total_thr, 'HVAC': hv
```

```
In [35]: # Make correlation matrix
         corr_matrix1 = df1.corr()
```

```
In [36]: # Visualize correlation matrix
         corr_matrix1.style.background_gradient(cmap='coolwarm')
```

```
Out[36]: <pandas.io.formats.style.Styler at 0x17d01194978>
```

6.0.2 Feature correlation with ops codes

```
In [37]: # Load data
         df_ops_hot = pd.read_csv('drilling_one_hot_encoded.csv',index_col='Datetime',parse_dat
         df_ops_hot.head(5)
```

```
Out[37]:                            1.0  2.0  3.0  5.0  6.0  7.0  8.0  11.0  12.0  \
         Datetime
         2019-01-25 16:00:00+00:00    0    0    0    0    0    0    0     0     0
         2019-01-25 16:00:01+00:00    0    0    0    0    0    0    0     0     0
         2019-01-25 16:00:02+00:00    0    0    0    0    0    0    0     0     0
         2019-01-25 16:00:03+00:00    0    0    0    0    0    0    0     0     0
         2019-01-25 16:00:04+00:00    0    0    0    0    0    0    0     0     0

                                     13.0  ...  25.0  26.0  27.0  31.0  32.0  34.0  \
         Datetime                          ...
         2019-01-25 16:00:00+00:00     0  ...     0     0     0     0     0     0
         2019-01-25 16:00:01+00:00     0  ...     0     0     0     0     0     0
         2019-01-25 16:00:02+00:00     0  ...     0     0     0     0     0     0
         2019-01-25 16:00:03+00:00     0  ...     0     0     0     0     0     0
         2019-01-25 16:00:04+00:00     0  ...     0     0     0     0     0     0

                                     35.0  38.0  41.0  43.0
         Datetime
         2019-01-25 16:00:00+00:00     0     0     0     1
         2019-01-25 16:00:01+00:00     0     0     0     1
         2019-01-25 16:00:02+00:00     0     0     0     1
         2019-01-25 16:00:03+00:00     0     0     0     1
         2019-01-25 16:00:04+00:00     0     0     0     1

         [5 rows x 26 columns]
```

```
In [38]: df2 = df_ops_hot.loc['2019-01-25 16:00:00+00:00':'2019-04-25 16:00:00+00:00']

In [43]: # Combine dataframes
         corr = pd.concat([df1,df2], axis=1)

In [44]: corr_matrix = corr.corr()

In [46]: m_corr=(corr_matrix.Drilling_VFD)
         m_corr_df= pd.DataFrame(m_corr)
         m_corr_df.sort_values(["Drilling_VFD"], ascending = False, inplace = True)
         m_corr_df
```

Out[46]:

	Drilling_VFD
Drilling_VFD	1.000000
2.0	0.656538
Drilling_utility	0.526503
HVAC	0.200083
5.0	0.194772
3.0	0.051007
35.0	0.037369
21.0	0.034977
34.0	0.000037
27.0	-0.009270
32.0	-0.011585
26.0	-0.011847
8.0	-0.015322
1.0	-0.019295
24.0	-0.021962
19.0	-0.030983
12.0	-0.032918
6.0	-0.034488
13.0	-0.038614
23.0	-0.041016
38.0	-0.044252
15.0	-0.049682
41.0	-0.062710
25.0	-0.069584
31.0	-0.076219
14.0	-0.083721
Thruster_VFD	-0.084822
7.0	-0.093866
11.0	-0.104600
43.0	-0.139793
Marine	-0.212632

6.0.3 Data for ops code histogram

```
In [47]: df_model_1 = total_drill.loc['2019-01-25 16:00:00+00:00':'2019-04-25 16:00:00+00:00']
```

```
In [48]: df_model_2 = df_ops_hot.loc['2019-01-25 16:00:00+00:00':'2019-04-25 16:00:00+00:00']

In [50]: # Combine dataframe (Drilling VFD and operation codes)
         hist_df = pd.concat([df_model_1,df_model_2], axis=1)

In [51]: rigup = hist_df.loc[hist_df['1.0'] == 1]
         print(rigup['Total power'].mean())
         print(rigup['Total power'].max())

259.9999814992795
1621.672518


In [52]: drillactual = hist_df.loc[hist_df['2.0'] == 1]
         print(drillactual['Total power'].mean())
         print(drillactual['Total power'].max())

735.3058687676846
1664.697063


In [53]: reaming = hist_df.loc[hist_df['3.0'] == 1]
         print(reaming['Total power'].mean())
         print(reaming['Total power'].max())

606.0966778355929
1589.10252


In [54]: condition = hist_df.loc[hist_df['5.0'] == 1]
         print(condition['Total power'].mean())
         print(condition['Total power'].max())

460.4807005529498
2524.383515


In [62]: tripping = hist_df.loc[hist_df['6.0'] == 1]
         print(tripping['Total power'].mean())
         print(tripping['Total power'].max())

303.7825337160014
2063.1766049999997


In [63]: maint = hist_df.loc[hist_df['7.0'] == 1]
         print(maint['Total power'].mean())
         print(maint['Total power'].max())
```

```
261.99408394444987
1681.987305
```

```
In [64]: repair = hist_df.loc[hist_df['8.0'] == 1]
         print(repair['Total power'].mean())
         print(repair['Total power'].max())
```

```
264.25946837484366
1382.021847
```

```
In [65]: wireline = hist_df.loc[hist_df['11.0'] == 1]
         print(wireline['Total power'].mean())
         print(wireline['Total power'].max())
```

```
258.22974081927896
1250.1335359999998
```

```
In [76]: run = hist_df.loc[hist_df['12.0'] == 1]
         print(run['Total power'].mean())
         print(run['Total power'].max())
```

```
291.3208896710072
1669.92434
```

```
In [77]: cement = hist_df.loc[hist_df['13.0'] == 1]
         print(cement['Total power'].mean())
         print(cement['Total power'].max())
```

```
280.2050563578717
1532.004578
```

```
In [78]: nipple = hist_df.loc[hist_df['14.0'] == 1]
         print(nipple['Total power'].mean())
         print(nipple['Total power'].max())
```

```
257.0956426033216
996.4094399999999
```

```
In [79]: testbop = hist_df.loc[hist_df['15.0'] == 1]
         print(testbop['Total power'].mean())
         print(testbop['Total power'].max())
```

```
252.63417396361004
1511.095411
```

```
In [80]: fishing = hist_df.loc[hist_df['19.0'] == 1]
         print(fishing['Total power'].mean())
         print(fishing['Total power'].max())
```

```
276.86528876872546
1425.046409
```

```
In [81]: stuck = hist_df.loc[hist_df['21.0'] == 1]
         print(stuck['Total power'].mean())
         print(stuck['Total power'].max())
```

```
684.8086183244438
1145.587967
```

```
In [82]: wow = hist_df.loc[hist_df['23.0'] == 1]
         print(wow['Total power'].mean())
         print(wow['Total power'].max())
```

```
250.74728232471918
683.576865
```

```
In [83]: marineops = hist_df.loc[hist_df['24.0'] == 1]
         print(marineops['Total power'].mean())
         print(marineops['Total power'].max())
```

```
269.82335234714327
482.92972759
```

```
In [84]: additional = hist_df.loc[hist_df['25.0'] == 1]
         print(additional['Total power'].mean())
         print(additional['Total power'].max())
```

```
257.1899883046777
1522.354215
```

```
In [85]: xmt = hist_df.loc[hist_df['26.0'] == 1]
         print(xmt['Total power'].mean())
         print(xmt['Total power'].max())
```

```
277.24626796813413
692.42302294
```

```
In [86]: workover = hist_df.loc[hist_df['27.0'] == 1]
         print(workover['Total power'].mean())
         print(workover['Total power'].max())
```

```
247.75710577092977
435.4821034
```

```
In [87]: tubing = hist_df.loc[hist_df['31.0'] == 1]
         print(tubing['Total power'].mean())
         print(tubing['Total power'].max())
```

```
264.46270735049484
1324.9238599999999
```

```
In [88]: niu = hist_df.loc[hist_df['32.0'] == 1]
         print(niu['Total power'].mean())
         print(niu['Total power'].max())
```

```
233.6850857774519
430.25485690000005
```

```
In [89]: testing = hist_df.loc[hist_df['34.0'] == 1]
         print(testing['Total power'].mean())
         print(testing['Total power'].max())
```

```
315.1675630434111
628.891468
```

```
In [90]: milling = hist_df.loc[hist_df['35.0'] == 1]
         print(milling['Total power'].mean())
         print(milling['Total power'].max())
```

```
384.34282365687824
1056.322137
```

```
In [91]: oandr = hist_df.loc[hist_df['38.0'] == 1]
         print(oandr['Total power'].mean())
         print(oandr['Total power'].max())
```

```
255.35594385667844
1372.7735519999999
```

```
In [92]: npt = hist_df.loc[hist_df['41.0'] == 1]
         print(npt['Total power'].mean())
         print(npt['Total power'].max())
```

```
230.3842547870296
1430.675735
```

```
In [96]: aux = hist_df.loc[hist_df['43.0'] == 1]
         print(aux['Total power'].mean())
         print(aux['Total power'].max())
```

```
240.34065156754903
784.905663
```

```
In [ ]:
```

C. Wärtsilä Technical Data

WÄRTSILÄ

Technical data

WÄRTSILÄ

Technical data
22.12.2015

Wärtsilä 12V32, Marine main engine, diesel-electric

Number of cylinders	12	
Engine speed	720	rpm
Engine output	5760	kW
Bore	320	mm
Stroke	400	mm
Mean effective pressure	2,49	MPa
Mean piston speed	9,6	m/s
Combustion air system: (Note 1)		
Flow at 100% load	9,86	kg/s
Temperature at turbocharger intake, max	45	°C
Temperature after air cooler, min (TE601)	50	°C
Temperature after air cooler, max (TE601)	60	°C
Temperature after air cooler, nom	55	°C
Temperature after air cooler, alarm	70	°C
Temperature after air cooler, stop	80	°C
Temperature before air cooler, nom	215	°C
Exhaust gas system: (Note 2)		
Flow at 100% load	10,17	kg/s
Flow at 85% load	9,65	kg/s
Flow at 75% load	8,7	kg/s
Flow at 50% load	6,3	kg/s
Temperature after turbocharger at 100% load (TE517)	384	°C
Temperature after turbocharger at 85% load (TE517)	331	°C
Temperature after turbocharger at 75% load (TE517)	330	°C
Temperature after turbocharger at 50% load (TE517)	354	°C
Temperature after cylinder, alarm	500	°C
Exhaust gas backpressure, max	4	kPa
Exhaust gas pipe diameter, min	800	mm
Exhaust gas pipe outlet diameter	600	mm
Calculated exhaust diameter for 35 m/s	827	mm
Heat balance at 100% load: (Note 3)		
Jacket water	949	kW
Charge air (HT-circuit)	915	kW
Charge air (LT-circuit)	728	kW
Lubrication oil	690	kW
Radiation	170	kW
Fuel system: (Note 4)		
Pressure before injection pumps, nom	700±50	kPa
Fuel consumption at 100% load (HFO)	182	g/kWh
Fuel consumption at 85% load (HFO)	180	g/kWh
Fuel consumption at 75% load (HFO)	181	g/kWh
Fuel consumption at 50% load (HFO)	191	g/kWh
Fuel consumption at 25% load (HFO)	224	g/kWh
Fuel consumption at 100% load (MDF)	182	g/kWh

Fuel consumption at 85% load (MDF)	180	g/kWh
Fuel consumption at 75% load (MDF)	181	g/kWh
Fuel consumption at 50% load (MDF)	191	g/kWh
Fuel consumption at 25% load (MDF)	224	g/kWh
Leak fuel quantity (MDF), clean fuel at 100% load	22	kg/h
Leak fuel quantity (HFO), clean fuel at 100% load	4,4	kg/h

Lubricating oil system:

Pressure before bearings, nom (PT201)	500	kPa
Pressure before bearings, alarm	300	kPa
Pressure before bearings, stop	200	kPa
Suction ability, including pipe loss, max	40	kPa
Priming pressure, nom (PT201)	50	kPa
Priming pressure, alarm	30	kPa
Temperature before bearings, nom (TE201)	63	°C
Temperature before bearings, alarm	70	°C
Temperature after engine, approx.	81	°C
Pump capacity (main), engine driven	124	m³/h
Pump capacity, electrically driven	106	m³/h
Priming pump capacity (50/60 Hz)	38/45,9	m³/h
Oil volume in separate system oil tank	6	m³
Oil volume, nom	3	m³
Filter fineness	30	microns
Filter difference pressure alarm	120	kPa
Oil consumption at 100% load, approx	0,35	g/kWh

High temperature cooling water system:

Pressure at engine, after pump, nom (PT401)	250+static	kPa
Pressure at engine, after pump, max (PT401)	530	kPa
Temperature before cylinders, approx. (TE401)	85	°C
Temperature after cylinders, nom (TE402)	96	°C
Temperature after cylinders without CAC, nom. (TE402)	96	°C
Temperature after charge air cooler, nom (TE432)	96	°C
Temperature after engine, alarm	105	°C
Temperature after engine, stop	110	°C
Capacity of engine driven pump, nom	100	m³/h
Pressure drop over engine, total	150	kPa
Pressure drop in external system, max	100	kPa
Pressure from expansion tank, min	70	kPa
Pressure from expansion tank, max	150	kPa
Delivery head of standby pump (excluding static pressure)	250	kPa
Water volume in engine	0,74	m³

Low temperature cooling water system:

Pressure at engine, after pump, nom	250+static	kPa
Pressure at engine, after pump, max	530	kPa
Temperature before engine, min	25	°C
Temperature before engine, max	38	°C
Capacity of engine driven pump, nom	100	m³/h
Pressure drop over charge air cooler	35	kPa
Pressure drop over oil cooler	20	kPa
Pressure drop in external system, max	100	kPa
Pressure from expansion tank, min	70	kPa
Pressure from expansion tank, max	150	kPa
Delivery head of stand-by pump (excluding static pressure)	250	kPa

Compressed air system: (Note 5)

Pressure, nom (PT301)	3000	kPa
Pressure, min (PT301)	1800	kPa
Pressure, max (PT301)	3000	kPa
Low pressure limit in air vessels	1600	kPa
Air consumption per start	5,7	Nm^3

Notes:

1) At ISO 15550 conditions (ambient air temperature 25°C, LT-water 25°C) and 100% load. Tolerance 5%.

2) At ISO 15550 conditions (ambient air temperature 25°C, LT-water 25°C) and 100% load. Flow tolerance 5% and temperature tolerance 10°C.

3) At ISO 15550 conditions (ambient air temperature 25°C, LT-water 25°C) and 100% load. Tolerance for cooling water heat 10%, tolerance for radiation heat 30%. Fouling factors and a margin to be taken into account when dimensioning heat exchangers.

4) At ambient conditions according to ISO 15550. Lower calorific value 42 700 kJ/kg. With engine driven pumps (two cooling water + one lubricating oil pump). Tolerance 5%.

5) Automatic (remote or local) starting air consumption (average) per start, at 20°C for a specific long start impulse (DE/AUX: 2...3 sec, CPP/FPP: 4...6 sec) which is the shortest time required for a safe start.

Wärtsilä reference number:1318

D. Operational Codes

Operational Codes

Code	Subcode	Description	Textblock
1		**RIG UP AND TEAR DOWN**	General rig up and tear down activities
	1.0	RIG UP AND TEAR DOWN.	General rig up and tear down activities.
2		**DRILL ACTUAL**	Drilling operations.
	2.00	DRILL ACTUAL	Rotating bit on bottom, including circulating / reaming prior to connection & connection time. Includes taking weights and SCR
	2.10	UNDERREAMING	Enlarging hole below last sat csg.
	2.20	HOLE OPENING	Rotating hrs. while enlarging pilot hole using holeopner or larger bit.
	2.30	DRILL CEMENT	Time spent drilling cement.
	2.40	TIME DRILLING	Time spent on time driling
	2.50	DRILL ACTUAL TOOL FAILURE	Reduced ROP due to Tool failure
	2.60	PRESSEREPOINTS WHILE DRILLING	From stop drilling to start drilling after pressurepoint
	2.70	CASING WHILE DRILLING	CWD, rotating bit on bottom, including circulating /while running casing
	2.75	JETTING CONDUCTOR	Time spent jetting conductor
	2.80	DIRECTION WORK	Time spent on setting tools and getting survey if <15 min
	2.90	SCR	Time spent on taking slow circulation rates
3		**REAMING**	Reaming when running in or pulling out of hole.
	3.00	REAMING	Time spent on rotating string during RIH due to tight hole, exessive fill or undergauged hole.
	3.10	BACKREAMING	Time used to rotate drillstring while POOH. Incl.wipertrip to improve hole conditions.
	3.30	NIU	Not in use
4		**CORING**	Coring operations
	4.0	CORING	Actually coring on bottom, removing core & service coreequipment.
5		**CONDITION MUD & CIRCULATE**	Circulate and condition well fluid
	5.0	CIRCULATE AND CONDITION MUD	Time used for circulate and condition mud . Can be used when circulating to get down gas level without closing BOP
	5.01	CIRCULATE HOLE CLEAN	Time used to circulate the hole/well clean
	5.02	DISPLACE WELL/RISER	Time used for displacing well ,riser, bop and kill and choke lines
	5.03	TREATING WELL	TREATING WELL
	5.04	PUMP PILL	Time spent on pumping pill if time speint is <15 min
	5.05	MUD AND FLUID PREPARATION	Time used to prepare fluid and line up
	5.06	JET AROUND WELLHEAD	Time spent on jetting around the wellhead with example jetsub, muleshoe, BHA
	5.07	MIX AND PREPARE MUD	Mix and prepare mud prior to drill ahead
6		**TRIPPING**	Tripping operations
	6.00	RIH CH	Tripping in with string in cased hole.Do not include filling of pipe if time spent >15 minutes.
	6.01	POOH CH	Pulling out with string i cased hole.
	6.02	PUMP AND POOH OH	Time used to pull string out of open hole while pumping
	6.03	PUMP AND POOH CH	Time used to pull string out of cased hole while pumping
	6.04	PUMP SLUG	Time used to pump slug before trips
	6.05	EMPTY TRIP TANK	Time used to empty trip tank <15 min
	6.06	FILL TRIP TANK	Time used to fill Trip tank< 15 min
	6.07	RIH CH Reduced speed	Tripping in with string in cased hole, with reduced speed.
	6.08	POOH CH reduced speed	Pulling out with string in cased hole, with reduced speed

Operational Codes

Code	Subcode	Description	Textblock
	6.09	WDP integrity test	Time used for wired drillpipe integrity signal test
	6.10	MAKE UP BHA	Make up and RIH with BHA includes HWDP.
	6.11	LAY DOWN BHA	POOH with BHA / Laying down BHA includes HWDP.
	6.12	MWD HANDLING	Dumping data and loading MWD and all surface handling of MWD.
	6.13	TRAINING WITH MANUAL RIG TONGS	All time spent on training with rig tongs, includes rig up and rig down of tongs.
	6.14	TEST MWD	Time used to surface test MWD
	6.15	CHECK OF HANDLING EQUIPMENT	Rig time spent on checking handling equipment
	6.16	M/U Wired BHA	Time used for make up wired bottom hole assembly
	6.17	L/D Wired BHA	Time used for laydown of wired bottom hole assembly
	6.18	RIH With WDP	Time used for tripping in hole with wired drillpipe
	6.19	POOH With WDP	Time used for pulling out of hole with wired drill pipe
	6.20	NIU	Not in use
	6.21	WORK PIPE	Time used to work pipe in or out of hole during trip. Can include rotating. Does not include circulating/pumping.
	6.22	WASH DOWN	Time used to move pipe up or down during a trip. Includes circulating/pumping.
	6.23	ENGAGE TOP DRIVE AND LAND TOOLS	Used where time spent to engage topdrive to string, compensate & land tools in well head or in well.
	6.24	SET/RELEASE Whipstock	Time used set and release whipstock run on pipe
	6.30	P/U DRILLSTRING	Time spent picking up drillstring to from deck - in use from 23.08.07.
	6.31	L/D DRILLSTRING	Time spent laying down drillstring to deck - in use from 23.08.07.
	6.32	TRIPPING WITH MANUAL EQUIPMENT	To be used when using manual rig tongs or manual slips. Both RIH and POOH.
	6.33	CHANGE HANDLING EQUIPMENT	Time used on changing tripping equipment (elevator/inserts and/or slips/inserts and bails).
	6.34	CHANGE SAVER SUB	Time spent to change saversub. Operational time.
	6.40	FILL PIPE	Fill pipe. If time spend > 15 minutes
	6.41	FLOW CHECK	Time used to flow check well.
	6.50	RIH OH	Run in open holePull out of open hole. Do not include filling of pipe or breaking cirkulation if time spent <15 minutes.
	6.60	POOH OH	Pull out of open hole
	6.70	MOVE RIG TO/OFF WELL	Move rig to/off well prior to stab in / pull out of wellhead with BHA.
	6.71	STAB IN HOLE	Time used to stab in hole with BHA. Includes installing of guidelines and run / pull guideframe.
	6.72	RIH RISER	Tripping in with string in riser - in use on ultra deep water
	6.73	POOH RISER	Pulling out with string in riser - in use on ultra deep water
	6.74	COMPENSATE THROUGH BOP	Time used to compensate tools through BOP
	6.75	TRIPPING RISER WITH FULL BORE TOOLS	Tripping in/out of riser with full bore tools. like boreprotector etc. - in use on ultra deep water.
	6.76	WELL CONTROL DRILLS	
	6.80	RIH OPEN WATER	Time used tripping in open water
	6.81	POOH OPEN WATER	Time spent pulling out of open water
	6.82	RIH with BHA	Time used RIH with BHA
	6.83	POOH with BHA	Time used POOH with BHA

Operational Codes

Code	Subcode	Description	Textblock
	6.90	TAKE PRESSURE POINT WHILE RIH	To be used when taking pressure point when RIH.
	6.91	TAKE PRESSURE POINT WHILE POOH	To be used when taking pressure point when POOH
7		**PLANNED MAINTENANCE**	All maintenance that is planned that stops operations.
	7.01	PLANNED MAINTENANCE	Normal and planned lubrication and service of rig.
	7.02	INSPECTION OF RIG	Inspection of rig prior to run csg. or inspection before and after bad weather and DROPS
	7.03	OPERATOR PLANNED MAINTENANCE	Maintenance that is planned by operator that requirer stop in the operation.
	7.04	UNPLANNED MAINTENANCE	Unplanned maintenance that is not planned and require stop in operation.
8		**REPAIR RIG**	
	8.0	REPAIR RIG	Actual downtime used on rig repairs. if poosible use sub
	8.01	MECHANICAL REPAIRS	Actual time spent on repair rig due to mechanical reasons.
	8.02	ELECTRICAL REPAIRS	Actual time spent on repair rig due to electrical reasons.
	8.03	DOWN TIME, OTHERS	Down time, others, caused by OD (Odfjell Drilling).
	8.04	DOWN TIME - BOP and Control system	Code for BOP and adhering control systems including pod's.
	8.05	DOWN TIME - Riser and Slipjoint	Code for reporting downtime related to equimpment from the BOP riser adapter and all adhering riser- and slip joint equipment up to drill floor».
	8.06	DOWN TIME - ROV Operations - Tech	Time spent waiting for ROV operations due to technical failure or any deficiencies
	8.07	DOWN TIME - ROV Operation - Resourc	Time spent waiting for ROV operations due to Resources
	8.08	DOWN TIME - Casing running - Tech	Time spent waiting for Casing running services due to technical failure or any deficiencies
	8.09	DOWN TIME - Casing running - Resour	Time spent waiting for Casing running services due to insufficient resources
9		**SLIP & CUT**	Time spent on slip and cut operations, change of drill - line or restring off block.
	9.01	SLIP & CUT DRILLING LINE	Time spent on slip and cut operations
	9.02	CHANGE OF DRILL LINE	Time spent on changing drill line
	9.03	STRINGING BLOCK	Time spent on stringing block, also when restringing lines.
10		**DEVIATION SURVEY/MWD LOGGING**	Time spent on taking deviation surveys and MWD logging
	10.01	DEVIATION SURVEY	Surveys with singel / multi shots for determine hole direction and deviation. NOT TO INCLUDE; Surveys with MWD during drilling
	10.02	MWD LOGGING	Surveying with MWD tool, time used for logging with MWD. NOT TO INKLUDE; Surveying time while drilling.
	10.03	NIU	Not in use
11		**WIRE LINE OPERATIONS**	Time spent on wire line logging operations.
	11.01	WIRE LINE LOGGING	Running wireline logging equipment. Includes formation tester, FMT, sidewall cores, seismic logs etc.
	11.02	RIG UP OR DOWN FOR WIRELINE	Time spent rigging up or down for wireline, including time spent handling W-L tools on surface w/ rig equipment between runs.
	11.03	WL OPERATIONS	Other wire line operation. Installation/retrieving plugs etc.
	11.04	TLC LOGGING	Time spent on TLC logging. Not to be used on trip inn and out.
	11.05	WIRE LINE TESTING	All presure testing of wire line equipment and testing of X-mas tree and DHSV, etc
12		**RUN AND PULL CASING/LINER**	Preferentially use sub codes 12.1 "RUN CSG." or 12.2 "CMT."
	12.00	RUN CASING IN CASED HOLE	Time spent on running casing & liner in cased hole.

Operational Codes

Code	Subcode	Description	Textblock
	12.05	PULL CASING IN CASED HOLE	Time spent on pulling casing & liner in cased hole.
	12.09	PULL CASING IN OPEN HOLE	Time spent on pulling casing in open hole.
	12.10	RUN CASING IN OPEN HOLE	Time spent on running casing in open hole.
	12.11	RIG UP CASING/LINER EQUIPMENT	Includes all rig up of csg and liner running equipment.
	12.12	RIG DOWN CASING/LINER EQUIPMENT	Includes all rig down of csg and liner running equipment.
	12.13	SEAL ASSY / WEAR BUSHING	Time spent on pulling/setting & testing seal assembly & wear bushing.
	12.14	LAND/ PULL CSG ON LANDING STRING	Run/pull csg on ex drill pipe or csg landing string
	12.15	RUN LINER IN CASING	Time spent on running liner in cased hole
	12.16	RUN LINER ON LANDING STRING IN CSG	Time spent on running liner on drillpipe or other landing string in casing.
	12.17	RUN LINER IN OPEN HOLE	Time spent on running liner in open hole
	12.18	BUILD CSG STANDS	P/U & build csg for racking in drk
	12.19	LAY DOWN CSG STANDS	B/O & L/D csg stands from drk.
	12.20	CIRC. CASING/LINER	Circulating prior to and after casing / liner is landed.
	12.21	CLEAN WH PRIOR TO RUN CASING/TUBING	Time spent on washing wellhead prior to running casing.
	12.22	RUN LINER ON LANDING STRING IN OH	Time spent on running liner on drillpipe or other landing string in OH.
	12.23	PULL LINER ON LANDING STRING IN OH	Time spent on pulling liner on drillpipe in open hole.
	12.24	PULL LINER ON LANDING STRING IN CSG	Time spent on pulling liner on drillpipe in casing.
	12.25	RUN CSG IN CH (REST SPEED)	Time spent running casing in cased hole with restricted running speed.
	12.26	RUN CSG IN OH (REST SPEED)	Time spent running casing in open hole with restricted running speed.
	12.27	RUN LINER IN CH (REST SPEED)	Time spent running liner in cased hole with restricted running speed.
	12.28	RUN LINER ON DP IN OH (REST SPEED)	Time spent running liner on pipe in open hole with restricted running speed.
	12.29	RUN LINER ON DP IN CH (REST SPEED)	Time spent running liner on pipe in cased hole with restricted running speed.
	12.30	CUT CASING	Time spent on cutting casing. Not to be used on trip in and out prior or after cut.
	12.31	SETTING OF LINERHANGER	Include setting of same
	12.40	Run CSG in open water RIH	Time spent on running casing in open water
	12.41	Pull CSG in open water POOH	Time spent pulling casing in open water
	12.42	Run Conductor in open water RIH	Time spent running conductor in open water
	12.43	Pulling conductor in open water	Time spent pulling conductor in open water POOH
	12.50	MOVE RIG RUN PULL CASING/LINER	Includes move rig to / from well.
	12.60	MAKE UP SHOETRACK	Time spent making up Shoetrack
	12.88	SET/RELASE MECH PLUGS	All time used on setting and releasing mechanical plugs that are run on pipe.
	12.89	RUN CONDUCTOR	Run Conductor
	12.90	PICK UP AND MAKE UP CASING HANGER	Pick up and make up casing hanger
	12.91	RUN INNERSTRING IN CASING	Time spent on running innerstring in casing
	12.92	RELEASE HANGER RUNNING TOOL	Time spent on release hanger running tool from well head/set hanger
13		**CEMENT OPERATINS**	Time spent on cement operations
	13.00	RIG UP AND DOWN CEMENT EQUIPMENT	R/U & R/D of cementing equipment.Includes pressuretests of

Operational Codes

Code	Subcode	Description	Textblock
			surface equipment.
	13.01	WAIT ON CEMENT	Time spent waiting on cement to set.
	13.02	PUMP CMT	Pumping of spacer, cement and displasing of cement.
	13.03	SQUEEZE CEMENT	Time spent on squeezing cement. Not to be used on trip in and out prior to squeeze cmt.
	13.10	PRESSURE TEST CEMENT	Time spent on testing cement.
	13.20	PRESSURE TEST OF CASING	Time spent on testing casing
14		**NIPPLE B.O.P.**	Installing BOP, Diverterstack and risers for initial installation and required BOP handling during drilling operations.
	14.00	NIPPLE UP B.O.P	Time spent on preparing BOP for running on subsea or preparing and nipple up BOP on HP riser on fixed rigs.
	14.01	NIPPLE DOWN B.O.P.	Time spent on preparing BOP for pulling on subsea or preparing and nipple down BOP on HP riser on fixed rigs.
	14.1	NIPPEL UP / DOWN WELLHEAD	Time spent on wellhead sections, conversion seal assembly and other wellhead equipment. NOT TO INCLUDE: Time spent on setting seal assy, Use code 12.13
	14.10	PREPARE & RIGGING IN MOONPOOL	All time spent rigging or preparing in moonpool for run or pull BOP
	14.11	PRESSURE TEST K&C LINES	Time spent on pressure test k&c lines when running BOP.
	14.12	PREPARE TO RUN BOP	Prepare to run subsea BOP. Includes rigging up riser handling equipment.
	14.15	PREPARE TO PULL BOP	Prepare to pull BOP. Includes rigging up riser handling equipment.
	14.16	TELESCOPIC JOINT	Time spent on handling Telescopic Join.
	14.17	RIG DOWN BOP RUNNING EQUIPMENT	Rig down BOP running equipment
	14.18	RIG UP BOP RUNNING EQUIPMENT	Time spent on rigging before running BOP
	14.19	RUN BOP	Time spent on running BOP. NOT TO INCLUDE: Move rig to/off wellhead (use code 14.30)
	14.191	RUN BOP WITH SLICK RISER	Time spent on running BOP with SLICK RISER
	14.192	RUN BOP WITH BUOYANG RISER	Time spent on running BOP with BUOYANG RISER
	14.193	RUN BOP WITH FAIRING BUOYANG RISER	Time spent on running BOP with FAIRING BUOYANG RISER
	14.20	PULL BOP	Time spent on pulling BOP. NOT TO INCLUDE: Move rig to / off wellhead.(use code 14.30) Time spent on setting wear bushing, (Use code 12.13).
	14.201	PULL BOP WITH SLICK RISER	Time spent on pulling BOP with SLICK RISER
	14.202	PULL BOP WITH BUOYANG RISER	Time spent on pulling BOP with BUOYANG RISER
	14.203	PULL BOP WITH FAIRING BUOYANG RISER	Time spent on pulling BOP with FAIRING BUOYANG RISER
	14.21	RUN HP-RISER	Time used on run HP-riser on fixed rigs.
	14.22	PULL HP-RISER	Time used on pull HP on fixed rigs.
	14.23	RUN, LP-RISER / DIVERTER	Time used on run , LP-RISER /DIVERTER .
	14.24	PULL ,LP-RISER /DIVERTER	Time used on pull , LP-RISER / DIVERTER.
	14.25	RIG UP BEFORE RUNNING LMRP	Time spent on rigging up before running LMRP
	14.26	INSTALL KILL, CHOKE, BOOST & COND.	All time spent for installing Kill, Choke, Boost & conduit gooseneck's on telescopic joint.
	14.27	RUN PROD. RISER	Run prod. Riser
	14.28	PULL PROD. RISER	Pull Prod. Riser
	14.29	RUN/PULL RISER PUP`S	Time spent to P/U or L/D to run or pull riser pup jnt`s.
	14.30	LAND BOP	Move rig & prepare to land BOP, includes running of slipjoint and etc.

Operational Codes

Code	Subcode	Description	Textblock
	14.31	HANDLE LANDING JOINT	Time spent to P/U and install landing joint or disconnect and L/D same.
	14.32	INST./DISC. LOOPS/SHEAVES FOR HYDR.	Time spent on installing or disconnecting loops or sheaves for hydraulic lines, mux cable or electric cables.
	14.33	PREPARE TO JUMP BOP	Time spent before and after jumping BOP
	14.34	JUMP BOP	Time spent for jumping BOP from one well to next.
	14.40	DISC. BOP	Disconnect BOP & move rig.
	14.41	Disconnect LMRP	Disconnect LMRP due to weather conditions
	14.42	Connect LMRP	Connect LMRP to BOP
	14.45	RUN/PULL SLOT NET	Trekking og kjøring av slot net
	14.99	NIU	Not in use
15		**TEST BOP / PRESSURE TESTING**	All time spent on pressure testing BOP and equipment.
	15.0	PRESS.TESTING OF CSG UNDER BOP TEST	Time spend testing casing in connection to BOP test.
	15.01	FUNCTION TEST BOP	Function testing of BOP.
	15.02	PRESSURE TEST MANIFIOLDS AND LINES	All rigtime spent on testing standpipe, kill & choke manifoils, fixed cmt lines standpipe and etc.
	15.03	PRESSURE TESTING KELLY COCKS	Rigg time spent on testing DDM, kellycooks, Grey valves & temporarily hooked up surface lines.
	15.04	KICK DRILL, CHOKE DRILL	Time spent for kick drills and practice on choke or strip drill.
	15.05	LEAK-OFF / FIT TEST	Time spent performing leak off test or FIT.
	15.06	CONNECTOR TEST	Test of wellhead and LMRP connector
	15.07	FUNCTION TEST DIVERTER	Time spent on function test of the diverter system.
	15.08	PRESSURE TEST SHEAR RAM	Pressure test shear ram
	15.11	PRESSURE TEST BOP	Pressure test BOP include function test on wellhead. Includes macking up test string and run/pull same.
16		**DRILL STEM TEST**	
	16.0	DRILL STEM TEST	Making up drill stem testing tool, conducting test, killing well and lay down test tool. NOT TO INCLUDE; R/U or R/D testing equipment; Use code 1. "RIG UP & TEAR DOWN"
17			Not in use
	17.0	NIU	Not in use
	17.1	NIU	Not in use
18			Not in use
	18.0	NIU	Not in use
19		**FISHING**	All lost rig time lost due to fishing operations until normal operation continues. TO INCLUDE: Wireline operations, feepoint indicators, backoff operations
	19.0	FISHING, OTHERS	Fishing activities not covered by 19.1 or 19.2
	19.1	FISHING OF DRILL STRING	Fishing for drillsting or drill string component.
	19.2	FISHING FOR WIRELINE EQUIPMENT	Fishing for loggs & wireline-equipment.
20			Not in use
	20.1	NIU	Not in use
21		**STUCK PIPE**	Lost operation time due to sticking or going stuck
	20.0	NIU	Not in use
	21.0	STUCK WITH DRILLSTRING	Lost operation time due to sticking or going stuck
	21.1	STUCK WITH LOGGING EQIUPMENT	Lost Rig time/operation time due to going stuck with wireline equipment. INCLUDES; Stuck during TLC logging.
	21.2	STUCK WITH LINER/CASING	Lost operation time due to sticking or going stuck

Operational Codes

Code	Subcode	Description	Textblock
	21.3	NIU	Not in use
22		**LOST CIRCULATION**	
	22.0	LOST CIRCULATION	All time spent to regaing circulation. Flowchecks, mixing of pills, cmt. squeeze, spotting of pluggs and waiting etc. are to be included.
23		**WAITING ON WEATHER**	
	23.00	WOW DRILLING	Waiting on weather: Lost time due to stop in operation until normal operation can continue.
	23.10	WOW ROV	Waiting on weather:Lost time due to stop in ROV operation until normal operation can continue.
	23.20	WOW SUB SEA EQUIPMENT	Waiting on weather:Lost time due to stop in landing / pulling operation until normal operation can continue.
	23.30	WOW SUPPLY	Waiting on weather:Lost time due to stop in unload / load operation of supply boat until normal operation can continue.
	23.40	WOW ANCHOR HANDLING	Waiting on weather:Lost time due to stop in anchor handling operation until normal operation can continue.
	23.50	WOW CRANE	Waiting on weather:Lost time due to stop in crane operation until normal operation can continue.
	23.60	WOW NON DRILLING ACTIVITIES	Waiting on weather: Lost time due to stop in operation until normal operation can continue.
	23.70	WOW OPERATOR / SERVICE COMPANY	Waiting on weather: Lost time due to Operator or Service company limitations until normal operation can continue.
24		**MARINE OPERATIONS / SKID RIG**	Activities in connection with rig move and anchorhandling on floating wessels and activities in connection with rig skidding on fixed platforms.
	24.00	IN TRANSIT / SKID RIG	IN TRANSIT
	24.10	ANCHOR HANDLING DEPARTURE	Time spent on anchor handling when departure location.
	24.100	NIU	Not in use
	24.20	ANCHOR HANDLING ARRIVAL	Time spent on anchor handling when arriving location.
	24.30	PREPARE TO SKID	Prepare to skid rig.
	24.40	SKID	Skid rig.
	24.50	RIG UP AFTER SKID	Rig up after skid
	24.60	YARDSTAY/MAINTENANCE STOP	Yardstay, maintenance stop on fixed rigs.
	24.70	DYNAMIC POSITIONED MODE	UNTIL POSITONING THROUGH THE DIGITAL GLOBAL POSITION SYSTEM HAS COMMENCED AT THE NEW WELL LOCATION
	24.71	DEPLOYING/RETREAVING TRANSPONDERS	Deploying or retreaving transponders and hydrophones.
	24.72	HYDRO ACCOUSTIC CALIBRATIONS	Hydro accoustic referance system calibration
	24.73	DP TRIALS	DP TRIALS
	24.80	HOOK UP PRELAID ANCHORS	Time spent for marine operations
	24.81	RELEASE PRELAID ANCHORS	Time spent for marine operations
	24.85	BALLAST RIG	Time spent for marine operations
	24.86	DEBALLAST RIG	Time spent for marine operations
	24.90	BRAKE TEST ANCHOR WINCHES	Time spent for marine operations
	24.91	TOW RIG TO 500 m ZONE	Time spent for marine operations
	24.98	MOVE RIG TO WELL/OFF WELL	Move rig to well/off well
	24.99	NIU	Former: Time spent for any additional marine operations
25		**ADDITIONAL**	
	25.0	NIU	Former: Operations not covered by any other code.

Operational Codes

Code	Subcode	Description	Textblock
	25.1	ROV OPERATIONS	All operations done by ROV, not covered in others code.
	25.2	STAND BY RATE	
	25.22	DROP's Inspection	Performing DROP's inspection of equipment in derrick or moonpool
	25.3	PREJOBMEETING - BRIEF/DEBRIEF	Meetings in operation. Prejobbmeeting, safetymeeting, brief, debrief, pit stop or other meetings included in operation (100 % rate).
	25.31	TOFS – Time Out for Safety in opera	TOFS - Time Out for Safety in operation.
	25.4	SUSPENSION RATE	Due to period of sustension
	25.5	REDRILLING RATE	drill new well hole to the depth at which the loss ore damage occorred or re-drill such section of the damaged well hole.
	25.6	NO PAYMENT OF RATE	The drilling unit is for any reason unable to perform the Drilling Service. Modification, Re Certifying...
	25.7	FORCE MAJEURE RATE	etc. strike
	25.8	Reduced Efficiency Rate	Reduced Efficiency rate
	25.91	Equipment planned maintenance	Stop in operation due to planned maintenance on equipment ie in between well maintenance
	25.92	Mobilization	Mobilizing rig for operations
	25.93	Demobilzation	Demobilzation of Rig after operation
	25.99	RETRIEVE BOP DUE TO OEM SAFETY BULL	Any time used, due to oem safety bulletins
26		**XMT**	
	26.00	XMT PREPARE RUN	Prepare to run XM-tree Includes testing, running tool & umbilical.
	26.10	XMT RUN	Run XM-tree Includes: Landing on fixed rigs.
	26.20	XMT LAND	Move rig & land
	26.30	XMT R.TOOL	Pull XM-tree running tool and lay down
	26.35	INSTALL JUMPER HOSES	Install 3" & 4" jumper hoses and test same
	26.40	XMT TEST	Test XMT/TRT when landed.
	26.50	XMT PREPARE PULL	Prepare to pull XM-tree
	26.60	XMT PULL	Pull XM-tree
	26.70	ADAPTOR FLANGE	Time spent on Adaptor flange
	26.71	HPTC RIG UP	Time spent on rigging up equipment before running HPTC
	26.72	RUN HPTC / RUNNING TOOL	Time spent on running HPTC or running frame on pipe or winch
	26.73	TEST HPTC	Time used on testing HPTC.
	26.74	PULL HPTC / RUNNING FRAME	Time spent on pulling HPTC or Running frame.
	26.75	HTPC RIG DOWN	Time spent on rigging down equmpent after running HPTC.
	26.80	RUN TRT/RPD	Time spent on prepering and running TRT/RPD
	26.81	PULL TRT/RPD	Time spent on prepering and pulling TRT/RPD
	26.90	Handle Subsea EQ on DrillFloor	Time spent handling Subsea Equipment on drillfloor.
	26.91	Work with Subsea EQ in WH area	Time spent working with Subsea Equipment in Wellhead area.
27		**WORKOVER RISER**	TIME SPENT ON WORKOVER RISER
	27.00	WOR RIG UP	Rig up equipment
	27.10	WOR RUN	Run
	27.20	WOR PULL	Pull
	27.30	WOR RIG DOWN	Rig down equipment
	27.40	WOR OTHER	Other
28		**SURFACE TEST TREE**	Time spent rigging up and down SST.
	28.00	STT RIG UP	Rig up surface test tree

Operational Codes

Code	Subcode	Description	Textblock
	28.10	STT RIG DOWN	Rig down surface test tree
	28.20	NIU	Not in use
29		**SCREEN**	
	29.00	SCREEN RIG UP / DOWN	Rig up / down equipment
	29.10	SCREEN RUN	Run screens. Includes landing string
	29.20	NIU	Not in use
30		**PERFORATING**	
	30.00	RIH PERFORATION GUNS	Run in hole with perforation guns
	30.10	POOH PERFORATION GUNS	Pull out of hole with perforation guns
	30.20	PERFORATION GUNS CORR AND PERFORATE	Orient guns, correlate and perforate weel etc.
	30.30	P/U PERFORATING GUNS	Pick up perforation guns
	30.40	L/D PERFORATING GUNS	Lay down perforation guns
31		**TUBING**	
	31.00	RUN TUBING	Run tubing.
	31.01	P/U AND INSTALL TBG ASSEMBLIES	Install and terminate TBG assemblies
	31.02	RIG UP FOR DUAL TUBING	Time spent on rig up for dual tubing.
	31.05	RUN TUBING DUAL STRING	Run tubing dual string
	31.10	PULL TUBING	Pull Tubing.
	31.15	PULL TUBING DUAL STRING	Pull tubing dual string
	31.20	RIG UP TUBING	Rig up tubing equipment
	31.21	RIG DOWN TUBING	Rig down tubing equipment
	31.22	RUN TUBING HANGER ON WOR	Time spent on running tubing hanger on WOR
	31.23	PRESSURE TEST TUBING AND CONT LINES	Time spent on testing tubing/controll-lines during completion.
	31.30	PICK HANGER MAKE UP AND TEST	Make up hanger land and test
	31.40	RUN TUBING ON LANDING STRING	Run on landing string.
	31.41	PULL TUBING ON LANDINGSTRING	Pull on landing string
	31.50	TERMINATING AND TESTING CONT LINES	Time spent on termination and testing of control lines
	31.51	SPACE OUT AND LAND TUBING HANGER.	Time spent on space out tubing and land tubing hanger. Include setting of prod packer.
32			Not in use
	32.0	NIU	Not in use
33			Not in use
	33.0	NIU	Not in use
34		**TESTING**	
	34.0	INFLOWTEST	Well testing.
	34.10	ACCEPTANCE TEST	Acceptance test
	34.2	INJECTIVITY TEST	INJECTIVITY TEST
35		**MILLING**	Time spent on milling
	35.0	MILLING	Time spent on milling, not to be used on trip inn and out.
36		**GRAVEL PACK**	Time spent on gravelpack operations
	36.0	GRAVEL PACK	Gravel packing operations.
37			Not in use
	37.0	NIU	Not in use
38		**O & R**	Stop due to housekeeping/cleaning are provided prior to operations are allowed to continue.
	38.0	CLEAN AND CLEAR RIGFLOOR	Stop due to housekeeping/cleaning are provided prior to operation continue.
39			Not in use

Operational Codes

Code	Subcode	Description	Textblock
	39.0	NIU	Not in use
	39.01	NIU	Not in use
40		**COILTUBING/SNUBBING**	
	40.10	Rig up coil tubing/snubbing	Time spent on rigging up coiltubing/snubbing equipment
	40.11	Rig down coil tubing/snubbing	Time spent on rigging down coiltubing/snubbing equipment
	40.20	Test coil tubing/snubbing	Time spent on testing coiltubing/snubbing, also for testing before RIH
	40.30	Run coil tubing/snubbing	Time spent RIH with coiltubing/snubbing.
	40.40	Pull coil tubing/snubbing	Time spent on pull coiltubing/snubbing out of hole
41		**NON PRODUCTIVE TIME**	
	41.01	WAIT ON 3.PART	Waiting on 3.part equipment og people
	41.02	WAIT ON ROV	Wait in etc. maintence of subsea wells.
	41.03	NPT	NPT Drilling contractor
	41.10	WAIT ON CRANES	Wait on cranes(platforms only)
	41.20	WAIT ON INSTRUCTIONS	Wait on company instructions
	41.30	WAIT ON EQUIPMENT, OPERATOR	Wait on equipment,operator
	41.40	WAIT ON EQUIPMENT, CONTRACTOR	Wait on equipment,contractor
	41.50	WAIT ON MATERIALS	Wait on materials
	41.60	WAIT ON PLATFORM OPS	Wait on platform operation schedule
	41.70	WAIT ON INVESTIGATION	Wait on investigation
	41.80	WAIT ON PERMITS	Time awaiting permits and alteration etc
	41.90	WAIT ON PERSONELL	Wait on personell etc. crewchange
42		**SHUT IN WELL**	
	42.10	SHUT IN WELL DUE TO GAS	Shut in well due to high gas level in mud and time spent sirculating with closed BOP
	42.20	SHUT IN WELL DUE TO KICK	Shut in well due to kick and time spent sirculating with closed BOP
43		**AUX**	
	43.1	AUX NO OPERATIONAL ACTIVITY	To be used for the Aux when there is no operational activity in the Aux. Time in aux spent on cleaning/maintenance of drilling equipment. Also to be used when Aux crew is working in Main.
	43.2	MAKE UP TOOLS OFFLINE	Building Eqiupment in buckingmachine
	43.3	Assist main well operations	To be used for the Aux when assisting main well operations.
	43.4	Install / Pull mousehole	running or pulling mousehole.
	43.5	MAIN OPERATION IN OTHER WELL CENTER	To be used when standing by for operation in other well center.

E. Daily Drilling Log

Applied filters:RigName is Deepsea Atlantic,Derrick is Main,DayMonthYear is on or after 20-Jan-19 and is before 01-May-19,RigName is not (Blank)

Date	RigName	Start Time	End Time	Duration Minutes	Depth	Operation Code	Operation Code Name	Effective Percent	Description	Well
30-apr-19	Deepsea Atlantic	10:20	11:50	90	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared rigfloor.	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	09:30	10:20	50	0	6,11	LAY DOWN BHA	100	L/D sngl HW, RT with GTV plug and Scrape to RCWM.L/D scrape with tugger.	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	09:15	09:30	15	18	6,83	POOH with BHA	100	POOH with GTV plug on 5 7/8" HWDP T/18m. Compensated through BOP.	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	08:45	09:15	30	387	6,08	POOH CH reduced speed	100	Continued POOH with GTV plug and scrape T/387m MD.	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	08:35	08:45	10	812	6,41	FLOW CHECK	100	Flow checked well against TT. Well static.	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	07:00	08:35	95	812	6,08	POOH CH reduced speed	100	POOH with GTV plug and scrape on 5 7/8" DP T/812m MD. Observed serveral points of OP	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	05:50	07:00	70	1853	6,08	POOH CH reduced speed	100	POOH with GTV plug and scrape on 5 7/8" DP. From 1948m to1856m. Observed some over	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	05:40	05:50	10	1948	6,04	PUMP SLUG	100	Pump 1,62sg slug.	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	05:30	05:40	10	1948	12,88	SET/RELEASE MECH PLUGS	100	RIH 2 meters past setting depth to confirm plug is free. POOH carefull true tie back gap.	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	05:20	05:30	10	1970	6,41	FLOW CHECK	100	Flow check. Well static.	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	04:30	05:20	50	1975	12,88	SET/RELEASE MECH PLUGS	100	RIH slowly and tag of top plug with 5ton @ 1975,4. Set down 20ton on GTV plug pull up 10 ton OP and set down 20 ton. No pressure change when latching on plug. Pressure up, down string with cement unit and verify plug is equalized. Pull 10 ton to verify that running string is still engage. Release the GTV plug according to	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	03:15	04:30	75	1960	5,02	DISPLACE WELL/RISER	100	Emty trip tanks, and start to displace well to 1,30sg Carbo-Sea above shallow GTV plug. With	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	03:00	03:15	15	1960	6,07	RIH CH Reduced speed	100	Connect to top drive and record up/down weight 146/112 ton. FRT 10 RPM 9kNm. RIH and comp. through Tie Back to 1960m.	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	02:00	03:00	60	1948	6	RIH CH	100	RIH with GTV retrieve assy on 5 7/8 DP from 500m to 1948m.	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	01:45	02:00	15	500	6,07	RIH CH Reduced speed	100	Run compensated with GTV retrieve assy in X-O 10 3/4"-9 5/8" from 490m to 500m	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	01:40	01:45	5	490	6	RIH CH	100	P/U on snq DP and RIH with GTV retrieve assy on 5 7/8DP from 390m to 490m	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	01:30	01:40	10	390	6,74	COMPENSATE THROUGH BOP	100	Compensated with GTV retrieve assy from 365m to 390m inside BOP	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	00:45	01:30	45	365	6,82	RIH with BHA	100	RIH with 10 stand 5 7/8" HWDP. F/15m - T365m	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	00:25	00:45	20	15	6,1	MAKE UP BHA	100	P/U GTV Retrieval assy & 1 sgl 5 7/8" HWDP DP. Install pipe doper	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	00:10	00:25	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to RIH with GTV Retrievall assy	35/11-B-12 BYIH
30-apr-19	Deepsea Atlantic	00:00	00:10	10	0	6,11	LAY DOWN BHA	100	Rack back jet sub stand	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	23:50	00:00	10	38	6,11	LAY DOWN BHA	100	L/D MUT in RCWM.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	23:20	23:50	30	50	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	POOH with MUT on 5 7/8" DP, reduced speed. from 383m to 50m.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	23:10	23:20	10	383	12,13	SEAL ASSY / WEAR BUSHING	100	Set down WB @ 383m, according to Aker rep. Pull free with 10 OP.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	22:50	23:10	20	383	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH with MUT on 5 7/8" DP, reduced speed. from 50m to 383m.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	22:15	22:50	35	50	6,1	MAKE UP BHA	100	RIH with 5 7/8" jet sub stand. P/U MUT from RCWM.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	22:00	22:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to P/U MUT	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	21:15	22:00	45	0	12,13	SEAL ASSY / WEAR BUSHING	100	Pressure test 9 5/8" x 10 3/4" tieback against BOP shear ram and GTV plug. Pressure up slowly to20/290 bar and hold for 10 min. Volumed pumped 709 liter, bleed back 709 liter.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	21:00	21:15	15	0	6,11	LAY DOWN BHA	100	P/U double 5 7/8" HWDP and rack back in derrick. L/D Hanger running tool in RCWM.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	20:10	21:00	50	26	6,11	LAY DOWN BHA	100	POOH with STT on 5 7/8" HWDP from 383m to 26m.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	19:20	20:10	50	1956	12,13	SEAL ASSY / WEAR BUSHING	100	Set seal assy according to Aker. Rotate string 9,5 turns CW torque build up to 2,2kNM. Pressure up quikly down choke line w/300bar volumed pumped 87liter, bleed back 85liter. Pull ST-MPT free according to Aker rep.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	18:45	19:20	35	1956	12,13	SEAL ASSY / WEAR BUSHING	100	Sat down 15tons landing string weight og ST-MPT.Marked drillstring. Wash for 15 min 1500lpm/9bar.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	17:30	18:45	75	1956	12,31	SETTING OF LINERHANGER	100	Recorded Up weight 196 ton and Down weight 168 ton. Established pump rate 200lpm/40bar. Land Hanger in WH according to BH instructions.Enter lipseal,pressure build up to 8 bar @ 1951,5m Closed UAP andpressuretested seal integrity T/60bar down DP and tieback. Bled off pressure and pressure tested seal integrity T/20bar annulus side from cmt unit down choke line. Bled down pressure and opend AP.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	16:30	17:30	60	1936	12,16	RUN LINER ON LANDING STRING IN CSG	100	RIH with 10 3/4" x 9 5/8" tieback on 5 7/8" HWDP.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	16:00	16:30	30	1585	6,3	P/U DRILLSTRING	100	L/D 1 5 7/8"hwdp pup and P/U 1 sngl 5 7/8" DP,due to spaceout, DP in BOP.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	15:30	16:00	30	1585	12,9	PICK UP AND MAKE UP CASING HANGER	100	P/U and M/U casing hanger. Removed protection on same and Aker inspect Hanger before RIH.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	15:25	15:30	5	1561	12,12	RIG DOWN CASNG/LINER EQUIPMENT	100	Rigged down csg equipment and removed 10 3/4" slips from RKB.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	15:10	15:25	15	1561	6,33	CHANGE HANDLING EQUIPMENT	100	Changed BX 3 to BX 4.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	14:15	15:10	55	1561	6,3	P/U DRILLSTRING	100	RIH with 1 std 10 3/4" tieback.P/U APRS from catwalk.Checked treads,clean and dope same.RIH with 1 std 10 3/4" tieback.P/U Noxar gauge assy.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	13:05	14:15	70	1473	6,33	CHANGE HANDLING EQUIPMENT	100	P/U 9 5/8" csg pup from catwalk. Changed inserts in elevator to 10 3/4" csg. RIH with XO from derrick. Removed 9 5/8" FMS and installed 10 3/4" slips in rotary	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	12:00	13:05	65	1446	12	RUN CASING IN CASED HOLE	100	Continued RIH with 9 5/8" Tie back from derrick F/855m T/1446m MD.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	11:20	12:00	40	855	12,25	RUN CSG IN CH (REST SPEED)	100	Continued RIH with 9 5/8" Tie back from derrick T/855m MD.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	11:10	11:20	10	619	6,33	CHANGE HANDLING EQUIPMENT	100	Changed tong inserts.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	10:50	11:10	20	471	6,04	PUMP SLUG	100	Pumped 10m³ 1,2sg brine due to backflow in string.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	10:00	10:50	50	471	12,25	RUN CSG IN CH (REST SPEED)	100	RIH with 9 5/8" Tie back from 13m to 471m MD.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	09:30	10:00	30	13	12,13	SEAL ASSY / WEAR BUSHING	100	Transfered seal stem from Aux to Main. BH inspect before RIH.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	09:15	09:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob before RIH with Tie Back.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	09:10	09:15	5	0	12,11	RIG UP CASING/LINER EQUIPMENT	100	Rig up csg equipment for 9 5/8"	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	08:55	09:10	15	0	6,33	CHANGE HANDLING EQUIPMENT	100	Changed to BX-4 elevator.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	08:20	08:55	35	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drill floor	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	08:05	08:20	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after retrieved 14" WB	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	07:45	08:05	20	0	6,11	LAY DOWN BHA	100	L/D MUT with WB in RCWM and R/B jet sub stand.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	07:20	07:45	25	58	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	POOH with 14" WB on 5 7/8" DP.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	07:00	07:20	20	365	5,06	JET AROUND WELLHEAD	100	Jet WH with 2300 lpm 17 bar.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	06:30	07:00	30	389	6,23	ENGAGE TOP DRIVE AND LAND TOOLS	100	Recorded Up/Dn weight 73/73 ton. Activated landingmode and land 13 3/8" MUT in WH @383m. Correlated for tide. Sat down 10 ton. Realesed wear bushing with 31 ton OP.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	06:00	06:30	30	365	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH from 50m to 365m with Aker Jet sub and MUT.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	05:45	06:00	15	50	6,1	MAKE UP BHA	100	P/U Aker jet sub and MUT, installed acc Aker instructions	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	05:30	05:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting for RIH with Jetsub and MUT	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	05:15	05:30	15	0	25,22	DROP's Inspection	100	Drops check grease topdrive.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	05:00	05:15	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drill floor.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	04:45	05:00	15	0	6,11	LAY DOWN BHA	100	L/D one 5 7/8" HWDP singel/running tool GTV plug and scrape assy in RCWM.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	04:30	04:45	15	24	6,33	CHANGE HANDLING EQUIPMENT	100	Remove wiper in rotary.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	03:40	04:30	50	24	6,11	LAY DOWN BHA	100	POOH to with running tool on 5 7/8" HWDP from 394m to 24m.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	03:25	03:40	15	394	6,01	POOH CH	100	POOH to with running tool on 5 7/8" DP from 798m to 394m	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	03:15	03:25	10	798	6,41	FLOW CHECK	100	Flowcheck on TT. Well static.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	02:25	03:15	50	798	6,01	POOH CH	100	POOH to with running tool on 5 7/8" DP from 1968m to 798m	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	02:15	02:25	10	1945	6,11	LAY DOWN BHA	100	L/D one 5 7/8" DP singel in RCWM.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	02:00	02:15	15	1968	6,41	FLOW CHECK	100	Flowcheck on TT. Well static.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	00:15	02:00	105	1968	5,02	DISPLACE WELL/RISER	100	Emty TT and start to displace K/C lines to 1.10 sg NaCl brine. Pump 5 m3 baosile 1500lpm/21bar, and 10 m3 Hi visc pill 2000lpm/36bar. Line up and displaced the well to 1.10 sg NaCl brine acc to displacement plan. Pump rate 4500 lpm.	35/11-B-12 BYIH
29-apr-19	Deepsea Atlantic	00:00	00:15	15	1983	12,88	SET/RELEASE MECH PLUGS	100	Released GTV RT, turned to (CCW) left, 5kNm 2 1/2 left hand turn to the string and lock the torque in the string.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	23:50	00:00	10	1983	12,88	SET/RELASE MECH PLUGS	100	Released GTV plug, turned to (CCW) left, 5kNm 2 1/2 left hand turn to the string and lock the torque in the string.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	23:10	23:50	40	1983	15	PRESS.TESTING OF CSG UNDER BOP TEST	100	Pressure test GTV to 20/280 bar 5/10 min. Pumped 1722liter, get 1704liter retur. Meanwhile hold prejobmeeting prior to displace well.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	22:30	23:10	40	1983	12,88	SET/RELASE MECH PLUGS	100	Set 9 7/8" GTV plug according to Baker rep. Set plug @ 1977,3m bottom plug. Bit depth @ 1982,7m	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	21:10	22:30	80	1983	6,08	POOH CH reduced speed	100	POOH with 9 5/8" GTV plug from 2978m to 1983m with use of Mud Bucked.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	20:00	21:10	70	2978	6,08	POOH CH reduced speed	100	POOH with 9 5/8" GTV plug from 3513m to 2978m	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	19:45	20:00	15	3513	6,41	FLOW CHECK	100	Flow checked well, well stable. Meanwhile installed wiper i rotary.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	17:45	19:45	120	3518	12,88	SET/RELEASE MECH PLUGS	100	Attemptedto release plug with right hand rotationshile and remaining 2-3ton OP and max 22kNm - NOGO. Worked torque down while pulling UP/Down. NOGO Go down to neutral weight 155 ton HL and 23 kNm and rotated 34 CW, Wait 10 min for packer element to retrack. Plug released.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	16:25	17:45	80	3419	15	PRESS.TESTING OF CSG UNDER BOP TEST	100	Closed upper annular and pressuretested 9 5/8" liner to 20/260bar for 5/10min. Bled down pressure T/20bar. Volum punped from 20-260bar 2084ltr / volum bled back 2011ltr. Bled off remaining pressure and opend BOP.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	16:00	16:25	25	3519	12,88	SET/RELASE MECH PLUGS	100	Connected TD and activated compensator. Recorded Up weight 186ton and Down weight 114ton. Spaced out and sat plug according BH instructions @ 3517,5m MD.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	14:00	16:00	120	3507	6,07	RIH CH Reduced speed	100	Continued RIH with GTV/Scrape T/3507m MD with reduced speed.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	13:50	14:00	10	1997	6,3	P/U DRILLSTRING	100	P/U sgl from catwalk. UP/DOWN wt 137T/112T with GTV plug inside 9 5/8" PBR.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	12:15	13:50	95	1989	6,07	RIH CH Reduced speed	100	RIH with GTV plug assy from 394m T/1989m MD with reduced speed. 0,6 m/s.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	12:10	12:15	5	394	6,74	COMPENSATE THROUGH BOP	100	Compensated BHA throug BOP.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	12:00	12:10	10	357	6,82	RIH with BHA	100	RIH with GTV/scrape T/357m MD.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	11:40	12:00	20	246	6,82	RIH with BHA	100	P/U sngl from RCWM and RIH with GTV/scrape T/357m MD with reduced speed.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	11:25	11:40	15	0	6,33	CHANGE HANDLING EQUIPMENT	100	Changed to 5 7/8" inserts in elevator and installed auto doper/hydraslips in RKB.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	11:15	11:25	10	0	6,1	MAKE UP BHA	100	Installed 5" handling equipment and M/U scrape and GTV plug. BH removed immobilizer clamp and inspect BHA.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	11:00	11:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after handling clean BHA and prejob meeting before RIH with scrape/GTV.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	10:30	11:00	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared driffloor prior to install plug and scrape.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	10:00	10:30	30	0	6,11	LAY DOWN BHA	100	Removed wiper, L/D 5 7/8" DP sgl & Top dress mill to RCWM.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	09:45	10:00	15	24	6,08	POOH CH reduced speed	100	POOH with Top dress mill on 5 7/8" DP from 400m to 10m MD.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	09:40	09:45	5	364	6,74	COMPENSATE THROUGH BOP	100	Comp Top dress mill through BOP.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	09:30	09:40	10	440	6,41	FLOW CHECK	100	Flowcheck below BOP.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	08:40	09:30	50	400	6,08	POOH CH reduced speed	100	POOH with Top dress mill on 5 7/8" DP from 1576m to 400m MD.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	08:25	08:40	15	1576	6,31	L/D DRILLSTRING	100	L/D 2 sgl white painted 5 7/8" DP sgl to RCWM.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	08:10	08:25	15	1595	6,08	POOH CH reduced speed	100	POOH with Top dress mill on 5 7/8" DP from 1945m to 1576m MD.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	07:55	08:10	15	1945	6,04	PUMP SLUG	100	Pumped slug	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	07:20	07:55	35	1945	12,2	CIRC. CASING/LINER	100	Tagged top PBR and closed UPR.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	07:10	07:20	10	1945	6,41	FLOW CHECK	100	Flow checked well against TT.	35/11-B-12 BYIH
28-apr-19	Deepsea Atlantic	06:00	07:10	70	1945	5,01	CIRCULATE HOLE CLEAN	100	Circulate 1 x B/U with 5000 lpm, 153 bar, 20 rpm and 6 kNm.	35/11-B-12 BYIH

28-apr-19	Deepsea Atlantic	05:15	06:00	45	1952	35,01	MILLING	100	Connect Top Drive on last std. Up weight: 127 Ton. Down weight: 107 Ton. Rotation 20 RPM: 5 kNm S/O weight w/rotation: 121 Ton P/U weight w/rotation: 113 Ton Establish pump rate: 500 l/pm/5 bar and rotation: 20 rpm. Run in carefully with rotation and set down 5 ton on top PBR. Tag PBR @ 1952,83m Dress top of PBR for 1 min. Circulate with 800 l/min/4bar 20 RPM Run down and polish PBR 3 times.	3S/11-B-12 BY1H
28-apr-19	Deepsea Atlantic	04:45	05:15	30	1936	6,07	RIH CH Reduced speed	100	RIH with PBR mill assy on 5 7/8" DP. RIH with reduced speed. From 1595m to 1936m	3S/11-B-12 BY1H
28-apr-19	Deepsea Atlantic	04:30	04:45	15	1595	6,3	P/U DRILLSTRING	100	P/U 2 joints white painted 5 7/8" DP from RCWM.	3S/11-B-12 BY1H
28-apr-19	Deepsea Atlantic	03:15	04:30	75	1575	6,07	RIH CH Reduced speed	100	RIH with PBR mill assy on 5 7/8" DP. RIH with reduced speed. From 398m to 1575m	3S/11-B-12 BY1H
28-apr-19	Deepsea Atlantic	03:10	03:15	5	398	6,74	COMPENSATE THROUGH BOP	100	Compensate while run Polish mill assy. mill through BOP/WH area.	3S/11-B-12 BY1H
28-apr-19	Deepsea Atlantic	02:45	03:10	25	365	6,07	RIH CH Reduced speed	100	RIH with PBR mill assy on 5 7/8" DP. RIH with reduced speed. From 22m to 365m	3S/11-B-12 BY1H
28-apr-19	Deepsea Atlantic	02:35	02:45	10	22	6,33	CHANGE HANDLING EQUIPMENT	100	Install pipe doper and 5 7/8" auto slips.	3S/11-B-12 BY1H
28-apr-19	Deepsea Atlantic	02:10	02:35	25	22	6,1	MAKE UP BHA	100	P/U PBR Polish mill assy from RCWM and 1 sgl 5 7/8" DP.	3S/11-B-12 BY1H
28-apr-19	Deepsea Atlantic	02:00	02:10	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to P/U BHA	3S/11-B-12 BY1H
28-apr-19	Deepsea Atlantic	01:50	02:00	10	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drill floor.	3S/11-B-12 BY1H
28-apr-19	Deepsea Atlantic	01:40	01:50	10	0	6,1	MAKE UP BHA	100	B/O and R/B Aker Jet sub	3S/11-B-12 BY1H
28-apr-19	Deepsea Atlantic	01:30	01:40	10	38	6,83	POOH with BHA	100	POOH with 5 7/8" HW DP BHA. from 101m to 38m	3S/11-B-12 BY1H
28-apr-19	Deepsea Atlantic	01:15	01:30	15	101	6,11	LAY DOWN BHA	100	L/D BOPIT to dack.	3S/11-B-12 BY1H
28-apr-19	Deepsea Atlantic	00:30	01:15	45	120	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	POOH with BOPIT from 383 to 120.	3S/11-B-12 BY1H
28-apr-19	Deepsea Atlantic	00:00	00:30	30	383	15,11	PRESSURE TEST BOP	100	Pressure test BOP according to Odfjell Drilling Sub-sea procedure/testing program. 20/300 bar 5/10 min. With blue pod. Meanwhile pressure test top drive and kelly hose. 20/300 bar 5/10 min.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	18:45	00:00	315	539	15,11	PRESSURE TEST BOP	100	Pressure test BOP according to Odfjell Drilling Sub-sea procedure/testing program. 20/300 bar 5/10 min. With blue pod. Meanwhile pressure test top drive and kelly hose. 20/300 bar 5/10 min.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	18:10	18:45	35	539	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH and land BOPITT in WH.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	17:55	18:10	15	383	5,06	JET AROUND WELLHEAD	100	Connected TD and washed BOP/ WH area with 2300 lpm - 25 BAR.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	17:40	17:55	15	369	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH with wash stand and BOPITT on 5 7/8" DP from 168m to 369m	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	17:00	17:40	40	168	6,1	MAKE UP BHA	100	M/U and RIH with wash stand, 3x 5 7/8" HWDP stands and BOPITT.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	16:45	17:00	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Performed clean and clear on rigfloor	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	16:30	16:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed debrief after trip out of hole	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	16:00	16:30	30	0	6,11	LAY DOWN BHA	100	POOH and L/D LHRT.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	15:50	16:00	10	15	6,01	POOH CH	100	POOH with 9 5/8" HRT from 400m to 15m. L/D and P/U dbl 5 7/8" DP due to space out BOP. Compensated 9 5/8" Hanger RT through BOP.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	15:35	15:50	15	400	6,41	FLOW CHECK	100	Flowchecked well with BHA below BOP.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	14:30	15:35	65	400	6,01	POOH CH	100	POOH with 9 5/8" HRT from 1950m to 400m	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	14:10	14:30	20	1950	6,04	PUMP SLUG	100	Pumped Sm^3 1,6sg slug.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	13:55	14:10	15	1950	6,41	FLOW CHECK	100	Flowcheck well	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	13:30	13:55	25	1950	5	CIRCULATE AND CONDITION MUD	100	Pumped one string volume to clean pipe.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	13:10	13:25	15	1953	6,41	FLOW CHECK	100	Flowcheck	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	13:10	13:30	20	1950	13	RIG UP AND DOWN CEMENT EQUIPMENT	100	B/O cement stand & R/B i AUX. Installed spong ball in string.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	12:00	13:10	70	1953	5,01	CIRCULATE HOLE CLEAN	100	Cirk hole clean for spacer and cement.3000 l/m-70 bar.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	11:30	12:00	30	1953	5,01	CIRCULATE HOLE CLEAN	100	Cirk hole clean for spacer and cement.3000 l/m-70 bar.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	11:00	11:30	30	3663	12,31	SETTING OF LINERHANGER	100	Pulled up and sat down 40ton on top 9 5/8" PBR. Sat packer according to BH procedure.P/U to St DW.Close UAP.Open UAP.Pull above PBR.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	10:45	11:00	15	3665	13	RIG UP AND DOWN CEMENT EQUIPMENT	100	Disconnected hoses from cmt stand.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	10:30	10:45	15	3665	13,02	PUMP CMT	100	Bled down pressrure according to proc. and checked for back flow.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	09:30	10:30	60	3665	13,02	PUMP CMT	100	Displaced cmt with 1,30sg OBM using rigpumps 1600lpm/30bar. Sheared out top WP @ 1323 stks/187bar. Reduced flowrate T/800lpm @ 4761stks and landed top WP after 4685stk FCP-93bar.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	06:45	07:00	15	0	6,33	CHANGE HANDLING EQUIPMENT	100		3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	06:00	06:45	45	0	25,22	DROP's inspection	100	Drops inspecion on TD and Main HR.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	06:00	09:30	210	3665	13,02	PUMP CMT	100	Pump 30 m3 1,20 sg light mud 1000 lpm/35 bar. Pump 27,4 m3 1,50 sg spacer at 1600 lpm. Closed kelly cook and set 50 bar behind. Resat flag and droped dart #1in front of cement. Started to mix 60,3 m3 1,80 sg gastight lead slurry. Pressure peak after bottom plug sheared out. Mixed and pumped 9,5 m3 1,90 sg gastight tail slurry @ 800lpm Displaced cement with 400 liter DW Closed Lo-torque and dropped dart #2 behind cement	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	05:45	06:00	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and cleare drillfloor.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	04:45	05:45	60	0	6,11	LAY DOWN BHA	100	Removed radioactive sources from BHA. POOH and transfer 8 1/4" BHA to Aux.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	04:30	04:45	15	40	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to L/D radioactive sources.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	03:55	04:30	35	40	6,11	LAY DOWN BHA	100	POOH with 12 1/4" BHA from 156m to 40m on 5 7/8" HWDP. L/D jar in RCWM.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	03:40	03:55	15	156	6,33	CHANGE HANDLING EQUIPMENT	100	Removed wiper in rotary. Install jumping jack slips.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	03:40	06:00	140	3665	5,01	CIRCULATE HOLE CLEAN	100	Establish circulation in steps of 200 lpm flow to 1600 lpm/55 bar. Circulate 1 x OH volume 6791 stroke without rotation and with stable parameters. Due to gas, decided to circulate 1 x B/U.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	03:35	03:40	5	156	6,11	LAY DOWN BHA	100	POOH with 12 1/4" BHA from 218m to 156m on 5 7/8" HWDP	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	03:25	03:35	10	218	6,01	POOH CH	100	POOH with 12 1/4" BHA from 365m to 218m. Take out 4 1/8" drift and drift sub.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	03:20	03:25	5	365	6,74	COMPENSATE THROUGH BOP	100	Comp through BOP with 12 1/4" BHA	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	03:15	03:40	25	3665	12,92	RELEASE HANGER RUNNING TOOL	100	Keep LH running tool in compression, 30 ton, and shear ball seat with 250 bar. Establish circulation in steps of 200 lpm flow to 1000 lpm. Burst rupture disc @ 120 bar.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	03:10	03:20	10	390	6,01	POOH CH	100	POOH with 12 1/4" BHA on 5 7/8" DP from 631m to 390m	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	03:05	03:10	5	631	15,04	KICK DRILL, CHOKE DRILL	100	Held kick drill with crew	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	02:55	03:05	10	631	6,41	FLOW CHECK	100	Flow check well for 10 min, OK. Meanwhile held prejob meeting for rack back 12 1/4" BHA	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	02:40	03:15	35	3665	12,31	SETTING OF LINERHANGER	100	Drop 2 1/4" brass setting ball. Pump down LH setting ball. Chase ball with 200 lpm 14bar. Pressure start to increased after 176 STK Pressure up controlled to 140 bar. Hold pressure for 3 min Bleed of pressure to 50 bar. Verified hanger set by applying 30 ton WOB	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	02:10	02:40	30	3665	13	RIG UP AND DOWN CEMENT EQUIPMENT	100	Hook up cement hose and control hoses for CMT head. Perform line test 200 bar.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	01:45	02:55	70	631	6,01	POOH CH	100	POOH with 12 1/4" BHA on 5 7/8" DP from 1956m to 631m.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	01:30	01:45	15	1956	6,33	CHANGE HANDLING EQUIPMENT	100	Install wiper below rotary and 5 7/8" HL/slips. Dropped 4" drift in string.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	01:20	01:30	10	1956	6,04	PUMP SLUG	100	Pumped Sm^3 with 1,61sg slug	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	01:20	02:10	50	3665	12,31	SETTING OF LINERHANGER	100	Tag bottom with 10 ton , 200 lpm / 14 bar at 3669m. P/U to free moving up-weight + 4 m. Marked pipe with laser. POOH to 3665m. Marked pipe with laser Orient window to desires orientation +/- 18° high side Cycled COT to OFF MODE Take pressure reading at 500 lpm as reference for bursting PDS rupture disc Final window orientation: 18° right side OK	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	01:10	01:20	10	1956	6,41	FLOW CHECK	100	Flow check well for 10 min, OK.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	00:40	01:20	40	3648	13	RIG UP AND DOWN CEMENT EQUIPMENT	100	Install cmt std and take up and down weight 255 ton and 133 ton	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	00:10	01:10	60	1956	5,01	CIRCULATE HOLE CLEAN	100	Circulate one bottom up and take readings prior to run liner. Up and down weight 150 ton and 118 ton, torque readings with 20 rpm /9 kNm and 30 rpm/ 11 kNm.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	00:00	00:10	10	1973	6,41	FLOW CHECK	100	Flow check well for 10 min, OK.	3S/11-B-12 BY1H
27-apr-19	Deepsea Atlantic	00:00	00:40	40	3646	12,31	SETTING OF LINERHANGER	100	Instal pup and take up and down weight see 255 ton and 133 ton, 3m stretch Orient MLT window test, OK	3S/11-B-12 BY1H
26-apr-19	Deepsea Atlantic	23:45	00:00	15	3617	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held debrief for RIH with landing string, meanwhile filled pipe with 1,30 sg OBM Checked and tested orientation of COT with 570 lpm. OK	3S/11-B-12 BY1H
26-apr-19	Deepsea Atlantic	22:40	23:45	65	3617	12,28	RUN LINER ON DP IN OH (REST SPEED)	100	Cont. RIH with 9 5/"8" Liner on 5 7/8" DP landing string from 3121m to 3617m to 1 stand before cement stand	3S/11-B-12 BY1H
26-apr-19	Deepsea Atlantic	22:05	22:40	35	3121	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held debrief for RIH with landing string, meanwhile filled pipe with 1,30 sg OBM Checked and tested orientation of COT with 570 lpm. OK	3S/11-B-12 BY1H
26-apr-19	Deepsea Atlantic	21:00	22:05	65	3121	12,28	RUN LINER ON DP IN OH (REST SPEED)	100	Cont. RIH with 9 5/8" Liner on 5 7/8" DP landing string from 2353m to 3121m.	3S/11-B-12 BY1H
26-apr-19	Deepsea Atlantic	20:40	21:00	20	2353	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held debrief for RIH with landing string, meanwhile filled pipe with 1,30 sg OBM Checked and tested orientation of COT with 570 lpm. OK	3S/11-B-12 BY1H
26-apr-19	Deepsea Atlantic	19:15	20:40	85	2553	12,28	RUN LINER ON DP IN OH (REST SPEED)	100	Cont. RIH with 9 5/8" Liner on 5 7/8" DP landing string from 1999m to 2553m L/O and P/U on double for space for hanger in BOP Took up/down weight with 140lpm/8bar 192ton/159ton. Orient and decode COT prior to exiting shoe.	3S/11-B-12 BY1H
26-apr-19	Deepsea Atlantic	18:35	19:15	40	1999	6,14	TEST MWD	100	RIH with reduced speed with 9 5/8" liner on 5 7/8" DP.	3S/11-B-12 BY1H
26-apr-19	Deepsea Atlantic	18:15	18:35	20	1999	6,07	RIH CH Reduced speed	100	P/U and M/U hanger in co-operation with BH. Filled casing and break circulation. Took up/down weight 185ton/157ton	3S/11-B-12 BY1H
26-apr-19	Deepsea Atlantic	16:45	18:15	90	1710	12,9	PICK UP AND MAKE UP CASING HANGER	100	Prejob meeting before P/U 9 5/8" Liner Hanger	3S/11-B-12 BY1H
26-apr-19	Deepsea Atlantic	16:30	16:45	15	1695	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Clean and clear P/U liner henger.	3S/11-B-12 BY1H
26-apr-19	Deepsea Atlantic	16:05	16:30	25	1695	38,01	CLEAN AND CLEAR RIGFLOOR	100	L/D CRT to catwalk.	3S/11-B-12 BY1H
26-apr-19	Deepsea Atlantic	16:00	16:05	5	1695	12,12	RIG DOWN CASING/LINER EQUIPMENT	100	RIH with 9 5/8" liner from derrick.	3S/11-B-12 BY1H
26-apr-19	Deepsea Atlantic	13:50	16:00	130	1695	12,15	RUN LINER IN CASING	100	Filled every std with 1.30sg OBM while RIH.	3S/11-B-12 BY1H
26-apr-19	Deepsea Atlantic	13:40	13:50	10	397	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief with Halburton and drilling crew acc. to MLT shoetrack.Meanwhile adjust Torque settings on CRT.	3S/11-B-12 BY1H
26-apr-19	Deepsea Atlantic	12:50	13:40	50	397	12,15	RUN LINER IN CASING	100	RIH with 9 5/8" liner.M/U with casingtong.	3S/11-B-12 BY1H
26-apr-19	Deepsea Atlantic	12:00	12:50	50	127	6,14	TEST MWD	100	Check the scribe assy's.Orient Window. Orientation from window to contingency latch assy 70 deg.	3S/11-B-12 BY1H
26-apr-19	Deepsea Atlantic	10:50	12:00	70	100	6,14	TEST MWD	100	Test COT /PDS assy .Install MLT Window std.Remove mag. bolt.	3S/11-B-12 BY1H
26-apr-19	Deepsea Atlantic	10:45	10:50	5	62	12,11	RIG UP CASING/LINER EQUIPMENT	100	P/U Back up CRTi and M/U same to TD.	3S/11-B-12 BY1H

26-apr-19	Deepsea Atlantic	09:45	10:45	60	62	8,03	DOWN TIME, OTHERS	0	P/U and attempted to M/U CRTI, not able to set in release position.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	09:30	09:45	15	62	6,33	CHANGE HANDLING EQUIPMENT	100	Change Bx 3 to Bx 4.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	09:00	09:30	30	62	12,19	LAY DOWN CSG STANDS	100	RIH with dobbel 9 5/8" liner with centrelizer.L/D top sngl on stand.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	08:45	09:00	15	38	12,6	MAKE UP SHOETRACK	100	RIH with shoe and F/C,fill same.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	08:15	08:45	30	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meetin prior M/U shoetrack with MLT equipment.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	07:45	08:15	30	0	12,11	RIG UP CASING/LINER EQUIPMENT	100	Install FMS and prepare casingtong.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	07:15	07:45	30	0	6,33	CHANGE HANDLING EQUIPMENT	100	Change from Bx 4 to Bx 3.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	07:00	07:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Handover with crew.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	06:30	07:00	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear R/F	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	05:45	06:30	45	0	25,22	DROP's inspection	100	Drops inspection drilling equipment.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	04:45	05:45	60	0	6,12	MWD HANDLING	100	Removed radioative sources from BHA. POOH and transfer 8 1/4" BHA to Aux.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	04:30	04:45	15	40	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed prejobmeeting prior to L/D radioactive sources.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	03:55	04:30	35	40	6,83	POOH with BHA	100	POOH with 12 1/4" BHA from 156 m to 40 m on 5 7/8" HWDP. L/D jar in RCWM.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	03:40	03:55	15	156	6,33	CHANGE HANDLING EQUIPMENT	100	Removed wiper in rotary. Installed jumping jack slips.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	03:35	03:40	5	156	6,83	POOH with BHA	100	POOH with 12 1/4" BHA from 218 m to 156 m on 5 7/8" HWDP	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	03:25	03:35	10	218	6,83	POOH with BHA	100	POOH with 12 1/4" BHA from 365 m to 218 m. Removed drift.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	03:20	03:25	5	365	6,74	COMPENSATE THROUGH BOP	100	Compensated through BOP with 12 1/4" BHA.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	03:10	03:20	10	390	6,83	POOH with BHA	100	POOH w/ 12 1/4" BHA on 5 7/8" DP from 638m to 390 m.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	03:05	03:10	5	638	15,04	KICK DRILL, CHOKE DRILL	100	Performed kick drill with crew.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	02:55	03:05	10	638	6,41	FLOW CHECK	100	Flowchecked well for 10 min prior to pull BHA through BOP. Meanwhile held prejob meeting for rack back 12 1/4" BHA	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	01:50	02:55	65	638	6,03	PUMP AND POOH CH	100	POOH w/ 12 1/4" BHA on 5 7/8" DP from 1975 m to 638 m. Avg. tripping speed 1234 m/hr.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	01:35	01:50	15	1975	6,33	CHANGE HANDLING EQUIPMENT	100	Installed wiper below rotary and 5 7/8" HL/slips. Dropped 4" drift in string.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	01:20	01:35	15	1975	6,04	PUMP SLUG	100	Pumped 5m³ with 1,61sg slug	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	01:10	01:20	10	1975	6,41	FLOW CHECK	100	Flow check well.Well static.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	00:20	01:10	50	1975	5,01	CIRCULATE HOLE CLEAN	100	Circulated w/ 4000 l/min, 187 bar, ECD 1.34 SG. Performed readings prior to run liner. Up/down weight 150 / 118 ton, torque readings with 20 rpm /9 kNm and 30 rpm/ 11 kNm.	35/11-B-12 BYIH
26-apr-19	Deepsea Atlantic	00:00	00:20	20	1975	6,41	FLOW CHECK	100	Flowcheck well.Well static.	35/11-B-12 BYIH
25-apr-19	Deepsea Atlantic	23:00	00:00	60	1975	6,02	PUMP AND POOH OH	100	Pump and POOH with 1000 lpm from 2277m to 1975m,	35/11-B-12 BYIH
25-apr-19	Deepsea Atlantic	13:15	23:00	585	2277	6,91	TAKE PRESSURE POINT WHILE POOH	100	Performed pressurepoints according to Baker procedure @ 3656.60m, 3512.30m, 3273.30m, 3241.30m, 2702.30m, Observed tight spot @ 2670m 30ton OP. Work string free after third attemt. Cont. Performed pressurepoints according to Baker procedure @ 2648.30m, 2643.30m, 2356.80m, 2316.30m, 2286.30m, 2282.30m, 2277.80m. Lubricated with 1000 LPM - 20 BAR while POOH between pressurepoints.	35/11-B-12 BYIH
25-apr-19	Deepsea Atlantic	13:00	13:15	15	3668	6,41	FLOW CHECK	100	Flowchecked well for 15 min. Well static.	35/11-B-12 BYIH
25-apr-19	Deepsea Atlantic	12:00	13:00	60	3668	5,01	CIRCULATE HOLE CLEAN	100	Continued to circulated 4x B/U with 4000 LPM -245 BAR - 160 RPM - 21 kNm TQ. Tagged TD @ 3669m and downlinked Ribs Off	35/11-B-12 BYIH
25-apr-19	Deepsea Atlantic	08:30	12:00	210	3668	5,01	CIRCULATE HOLE CLEAN	100	Circulated 4x B/U with 4000 LPM -245 BAR - 160 RPM - 21 kNm TQ	35/11-B-12 BYIH
25-apr-19	Deepsea Atlantic	04:30	08:30	240	3668	2	DRILL ACTUAL	100	Drilled 12 1/4" from 3479m to 3668m MD with 4000lpm/243bar, 160RPM/15-28kNm, 10-18ton WOB, take servals downlinks. See 10 % gas at 3558m	35/11-B-12 BYIH
25-apr-19	Deepsea Atlantic	04:10	04:30	20	3464	2,6	PRESSEREPOINTS WHILE DRILLING	100	Performed pressurepoint @ 3464,6m MD bit depth according to Baker DD. See 30 ton OP when POOH after PP	35/11-B-12 BYIH
25-apr-19	Deepsea Atlantic	02:15	04:10	115	3479	2	DRILL ACTUAL	100	Drilled 12 1/4" from 3395,6m to 3479m MD with 4000lpm/238bar, 160RPM/15-25kNm, 10-18ton WOB	35/11-B-12 BYIH
25-apr-19	Deepsea Atlantic	02:00	02:15	15	3396	2,6	PRESSEREPOINTS WHILE DRILLING	100	Performed pressurepoint @ 3395,6m MD bit depth according to Baker DD.	35/11-B-12 BYIH
25-apr-19	Deepsea Atlantic	01:35	02:00	25	3405	5,01	CIRCULATE HOLE CLEAN	100	P/U of bottom and circulated with 3000 lpm and 80 rpm, meanwhile discuss pressure point depth with town.	35/11-B-12 BYIH
25-apr-19	Deepsea Atlantic	00:00	01:35	95	3406	2	DRILL ACTUAL	100	Drilled 12 1/4" from 3356m to 3406m MD with 4000lpm/230bar, 160RPM/15-25kNm, 10-18ton WOB.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	23:40	00:00	20	3356	5,01	CIRCULATE HOLE CLEAN	100	Resiopcate string and circulate due to 20% gas. With 2360lpm/93bar 115RPM.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	23:10	23:40	30	3356	2	DRILL ACTUAL	100	Drilled 12 1/4" from 3340m to 3356m MD with 4000lpm/230bar, 160RPM/15-25kNm, 10-18ton WOB	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	22:40	23:10	30	3321	2,6	PRESSEREPOINTS WHILE DRILLING	100	Performed pressurepoint @ 3320,7m MD bit depth according to Baker DD.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	19:45	22:40	175	3340	2	DRILL ACTUAL	100	Drilled 12 1/4" from 3192m to 3340m MD with 4000lpm/230bar, 160RPM/15-25kNm, 10-18ton WOB	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	19:30	19:45	15	3192	2,9	SCR	100	SCR @ 3192m MD MP1 20spm/11bar 30spm/14bar 40spm/17bar MP4 20spm/13bar 30spm/15bar 40spm/18bar	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	12:00	19:30	450	3192	2	DRILL ACTUAL	100	Drilled 12 1/4" from 2849m to 3192m MD with 4000lpm/230bar, 160RPM/15-25kNm, 10-18ton WOB	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	11:45	12:00	15	2849	2	DRILL ACTUAL	100	Drilled 12 1/4 hole from 2848 m to 2849 m.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	11:10	11:45	35	2848	6,22	WASH DOWN	100	Washed down from 2812 m with 60 rpm and 4000 lpm/230 bar. Sent downlink while washing down.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	10:45	11:10	25	2812	5	CIRCULATE AND CONDITION MUD	100	Filled pipe and broke circulation to 4000 lpm rotated pipe slowly. Took survey.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	10:30	10:45	15	2812	6,1	MAKE UP BHA	100	Installed drilling stand.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	08:45	10:30	105	2812	6,5	RIH OH	100	RIH OH from 1999 m to 2812 m. Compensated through 14" shoe. Took some weight several places while RIH , pulled up and checked string free, slided passed with 5-10 ton WOB.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	08:15	08:45	30	1999	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to Run into open hole. Meanwhile filled pipe and emptied TTs.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	07:30	08:15	45	1999	6	RIH CH	100	RIH with 12 1/4" BHA on 5 7/8" DP from 994 m to 1999 m.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	07:00	07:30	30	994	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to RIH and handover with oncoming crew. Meanwhile filled pipe and emptied TTs.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	06:45	07:00	15	994	6	RIH CH	100	RIH with 12 1/4" BHA on 5 7/8" DP from 615 m to 994 m.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	06:30	06:45	15	615	15,04	KICK DRILL, CHOKE DRILL	100	Performed kick drill with nightshift. Held debrief.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	06:00	06:30	30	615	6	RIH CH	100	RIH with 12 1/4" BHA on 5 7/8" DP from 237m to 615m	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	05:10	06:00	50	237	6,82	RIH with BHA	100	RIH with 3 stands 5 5/8" HWDP, 1x Jar and 2 stands 5 7/8" HWDP.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	04:50	05:10	20	15	6,12	MWD HANDLING	100	Installed radioactive sources in BHA.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	04:10	04:50	40	0	6,11	LAY DOWN BHA	100	Replaced 12 1/4" bit. Grading of used bit: 2-3-CT-S-X-I-BT-PR.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	02:00	04:10	130	0	6,12	MWD HANDLING	100	Removed radioactive sources and downloaded data. Meanwhile	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	01:50	02:00	10	0	6,11	LAY DOWN BHA	100	POOH with 12 1/4" BHA.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	01:30	01:50	20	37	6,83	POOH with BHA	100	POOH with 12 1/4" BHA on 5 7/8" HWDP from 237m to 37m MD.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	01:25	01:30	5	237	6,01	POOH CH	100	POOH with 12 1/4" BHA on 5 7/8"DP from 388m to 237m MD.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	01:20	01:25	5	351	6,74	COMPENSATE THROUGH BOP	100	Compansated through BOP with 12 1/4" BHA	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	01:10	01:20	10	388	6,01	POOH CH	100	POOH with 12 1/4" BHA on 5 7/8"DP from 653m to 388m MD.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	00:05	01:10	65	653	25,22	DROP's inspection	100	Drops inspection on TD and HR in Main WC.	35/11-B-12 BYIH
24-apr-19	Deepsea Atlantic	00:00	00:05	5	653	6,41	FLOW CHECK	100	Flow checked well against TT. Well statick.	35/11-B-12 BYIH
23-apr-19	Deepsea Atlantic	23:50	00:00	10	653	6,41	FLOW CHECK	100	Flow checked well against TT	35/11-B-12 BYIH
23-apr-19	Deepsea Atlantic	22:50	23:50	60	653	6,01	POOH CH	100	POOH with 12 1/4" BHA on 5 7/8" DP F/1979m T/653m MD.	35/11-B-12 BYIH
23-apr-19	Deepsea Atlantic	22:30	22:50	20	1979	6,41	FLOW CHECK	100	Flow checked well against TT. Well statick.	35/11-B-12 BYIH
23-apr-19	Deepsea Atlantic	20:30	22:30	120	1979	6,6	POOH OH	100	POOH with 12 1/4" BHA on 5 7/8" DP from 2650m MD to 1941m MD. Obstruction @ 2645m/2487m/2478m/2413m/ MD, connect TD and rotated through tight spot.	35/11-B-12 BYIH
23-apr-19	Deepsea Atlantic	20:15	20:30	15	2650	6,15	CHECK OF HANDLING EQUIPMENT	100	Checked tripping equipment. Installed 2x wipers below rotary.	35/11-B-12 BYIH
23-apr-19	Deepsea Atlantic	20:00	20:15	15	2650	6,04	PUMP SLUG	100	Connected TD. Pumped 6m³ 1,61 SG slug.	35/11-B-12 BYIH
23-apr-19	Deepsea Atlantic	19:20	20:00	40	2650	6,6	POOH OH	100	POOH with 12 1/4" BHA on 5 7/8" DP from 2840m MD to 2643m MD. Pulled wet.	35/11-B-12 BYIH
23-apr-19	Deepsea Atlantic	19:00	19:20	20	2840	6,41	FLOW CHECK	100	Flow checked well, meanwhile installed wiper above slips.	35/11-B-12 BYIH
23-apr-19	Deepsea Atlantic	17:45	19:00	75	2840	5,01	CIRCULATE HOLE CLEAN	100	Circulated B/U prior to POOH. Sent several downlinks. Took TD survey.	35/11-B-12 BYIH
23-apr-19	Deepsea Atlantic	12:00	17:45	345	2848	2	DRILL ACTUAL	100	Drilled 12 1/4" hole from 2802 m to 2848 m. Several stringers. Slow progress from 2844 m to 2848 m , 1 m/h. Decided to POOH to check bit.	35/11-B-12 BYIH
23-apr-19	Deepsea Atlantic	09:40	12:00	140	2802	2	DRILL ACTUAL	100	Drilled 12 1/4" hole from 2775 m to 2802 m. Several stringers.	35/11-B-12 BYIH
23-apr-19	Deepsea Atlantic	09:30	09:40	10	2775	2,9	SCR	100	Took SCR with MP 1 and 4.	35/11-B-12 BYIH
23-apr-19	Deepsea Atlantic	09:15	09:30	15	2775	6,41	FLOW CHECK	100	Flow checked well due to active not decreasing enough while drilling. Flow checked ok.	35/11-B-12 BYIH
23-apr-19	Deepsea Atlantic	00:00	09:15	555	2775	2	DRILL ACTUAL	100	Drilled 12 1/4" hole from 2563m to 2775 m. Several stringers.	35/11-B-12 BYIH
22-apr-19	Deepsea Atlantic	19:20	00:00	280	2563	2	DRILL ACTUAL	100	Drilled 12 1/4" hole from 2521m to 2563m MD. Several stringers. Reduced drilling parameters while drilling stringers. For parameters see footage log. String stalled @2521m MD jared string free. RIH carefully and string stalled again jared free. continued drilling.	35/11-B-12 BYIH
22-apr-19	Deepsea Atlantic	12:00	19:20	440	2521	2	DRILL ACTUAL	100	Drilled 12 1/4" hole from 2466 m to 2521m MD. Several stringers. Reduced drilling parameters while drilling stringers. For parameters see footage log. String stalled when drilling at 2496 m. Jared string free. Continued drilling.	35/11-B-12 BYIH
22-apr-19	Deepsea Atlantic	07:45	12:00	255	2466	2	DRILL ACTUAL	100	Drilled 12 1/4" hole from 2445 m to 2466 m. Several stringers. Drilled stringers with reduced parameters. For parameters see footage log.	35/11-B-12 BYIH
22-apr-19	Deepsea Atlantic	07:10	07:45	35	2445	2,1	UNDERREAMING	100	Pulled up 3 m , reamed High Dogleg with 5 m/h according to DD instruction.	35/11-B-12 BYIH
22-apr-19	Deepsea Atlantic	00:00	07:10	430	2445	2	DRILL ACTUAL	100	Drilled 12 1/4" hole from 2395 m to 2445 m.Several stringers. Reduced drilling parameters while drilling stringers. For parameters see footage log. String stalled out @ 2433m. Activated jar and pulled string free.	35/11-B-12 BYIH
21-apr-19	Deepsea Atlantic	14:50	00:00	550	2395	2	DRILL ACTUAL	100	Drilled 12 1/4" hole from 2375 m to 2395 m with 4000 lpm/200 bar and 140 rpm. Various WOB 3-15 ton. Much stringers. Reduced rpm to 60-100 and flow to 3000 lpm while drilling stringers.	35/11-B-12 BYIH
21-apr-19	Deepsea Atlantic	14:30	14:50	20	2375	21,01	STUCK WITH DRILLSTRING	100	Stuck when drilling at 2375 m. Jared string free. Attempted to go back on bottom and continue drilling. String stuck again. Jared string free. Continued drilling.	35/11-B-12 BYIH
21-apr-19	Deepsea Atlantic	12:00	14:30	150	2375	2	DRILL ACTUAL	100	Drilled 12 1/4" hole from 2355 m to 2375 m with 4000 lpm/200 bar and 140 rpm. Various WOB 3-15 ton. Much stringers. Reduced rpm to 60-100 and flow to 3000 lpm while drilling stringers.	35/11-B-12 BYIH
21-apr-19	Deepsea Atlantic	07:00	12:00	300	2355	2	DRILL ACTUAL	100	Drilled 12 1/4" hole from 2320 m to 2355 m with 4000 lpm/200 bar and 140 rpm. Various WOB 3-14 ton. Reduced rpm to 60-100 and flow to 3000 lpm while drilling stringers.	35/11-B-12 BYIH
21-apr-19	Deepsea Atlantic	06:10	07:00	50	2320	2	DRILL ACTUAL	100	Drilled 12 1/4" hole F/2310m T/2320m MD with parametres 4000lpm/210bar, 140rpm/12-30kNm, max10ton WOB and limited ROP 75m/hrs. String stalled and pipe stuck 2 times, jared free pipe.	35/11-B-12 BYIH
21-apr-19	Deepsea Atlantic	05:55	06:10	15	2310	21,01	STUCK WITH DRILLSTRING	100	String stalled out, not able to free pipe with rotation and 30ton overpull. Jared string free with 20ton hookload, string free at first attempt.	35/11-B-12 BYIH
21-apr-19	Deepsea Atlantic	00:00	05:55	355	2310	2	DRILL ACTUAL	100	Drilled 12 1/4" hole F/2057m T/2310m MD with parametres 4000lpm/202bar, 150rpm/12-30kNm, max10ton WOB and limited ROP 75m/hrs. Stringer @ 2292m MD reduced to 60 RPM and various WOB settings. String stalled out several times during drilling in stringers.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	22:10	00:00	110	2057	2	DRILL ACTUAL	100	RIH back to bottom with flow and rotation started to drill 12 1/4" hole with 60RPM/14kNm 3500liter/158bar 10ton WOB.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	20:00	22:10	130	1994	15,05	LEAK-OFF / FIT TEST	100	Performed XLOT according to DOP.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	18:30	20:00	90	1997	5,01	CIRCULATE HOLE CLEAN	100	Circulated hole clean prior to XLOT. Waited for 3min and started pumps acc to MWD engineer to measure ECD. Stopped pump and spaced out and closed Lower Annular.	35/11-B-12 BYIH

20-apr-19	Deepsea Atlantic	18:10	18:30	20	2010	2	DRILL ACTUAL	100	Drilled 3 m new formation. Pulled bit into 14" shoe.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	18:00	18:10	10	1997	2,9	SCR	100	Took SCR mp 1 and 4.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	13:25	18:00	275	2007	2,3	DRILL CEMENT	100	Drilled cement/wiper plug and float according to DD instruction. 2-10 ton WOB, 80 rpm and 3500 lpm/165 bar. Reduced MW from 1,34 SG to 1,30 SG while drilling cement. Drilled shoe with low WOB. Drilled rathole in steps of 2 m and pulled inside shoe in each steps. Pulled out through 14" shoe with low flow and no rotation. Slided through 14" shoe and rathole with no flow and no rotation.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	12:50	13:25	35	1967	6,22	WASH DOWN	100	Took up/down weight 147/115 ton. Washed down and tagged cement with 1000 lpm and 30 rpm.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	12:25	12:50	25	1903	15,04	KICK DRILL, CHOKE DRILL	100	Close UAP and perform choke drill. Pressure up well to 20 bar. Opened UAP.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	12:00	12:25	25	1903	6,4	FILL PIPE	100	Fill pipe and empty TT.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	11:45	12:00	15	1903	6,1	MAKE UP BHA	100	Made up drilling stand.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	11:30	11:45	15	1903	6,32	TRIPPING WITH MANUAL EQUIPMENT	100	Used manual slips while tripping last stands.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	11:20	11:30	10	1675	6,33	CHANGE HANDLING EQUIPMENT	100	Not able to sit 5 7/8 slips. Changed to 5 7/8 manual slips.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	10:45	11:20	35	1675	6	RIH CH	100	RIH from 994 m to 1675 m.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	10:10	10:45	35	994	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrif after 12 1/4" BHA and tripping so far. Meanwhile filled pipe and emptied TT.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	09:35	10:10	35	994	6	RIH CH	100	RIH from 388 m to 994 m. Training with new personel.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	09:25	09:35	10	388	6,74	COMPENSATE THROUGH BOP	100	Compensated through BOP.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	09:20	09:25	5	351	6	RIH CH	100	RIH from 237 m to 351 m.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	07:30	09:20	110	237	6,1	MAKE UP BHA	100	Transferd premade 12 1/4" BHA from aux to main and RIH with same. Continued RIH on 3 stand 5 7/8 HWDP. P/U and M/U jar. RIH on 2 stand 5 7/8 HWDP. Made up driftsub.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	07:15	07:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to RIH with 12 1/4" BHA and install radioactive sources.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	06:45	07:15	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drill floor.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	06:00	06:45	45	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rigged down wireline equipment.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	05:45	06:00	15	100	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed debrief after logging. Performed projob prior to rig down wireline equipment.	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	02:15	05:45	210	0	11,01	WIRE LINE LOGGING	97	Performed CBL/USIT logg of 13 5/8" casing according to DOP D050	35/11-B-12 BYIH
20-apr-19	Deepsea Atlantic	00:00	02:15	135	0	13,01	WAIT ON CEMENT	97	Waiting on cement. Meanwhile Wireline RIH with CBL/USIT logg string. Builded 9 5/8" casing in AUX.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	22:15	00:00	105	0	13,01	WAIT ON CEMENT	97	Waited on cmt. Meanwhile rig up for wireline and RIH with wireline to top of LC 1967m.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	22:00	22:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob prior to rig up wireline equipment.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	14:30	22:00	450	0	13,01	WAIT ON CEMENT	97	Waited on cement. Meanwhile laid down Cement stand. Built 12 1/4" BHA. General maintenace on drilling equipment and in drilling areas.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	13:30	14:30	60	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drillfloor. Lifted FMS from drillfloor to RCWM.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	13:15	13:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrif after RIH with 14" WB and L/D MUT.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	12:10	13:15	65	0	6,11	LAY DOWN BHA	100	POOH with MUT and wash stand on 5 7/8 HWDP. Broke out and laid down MUT and racked back wash stand.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	12:00	12:10	10	430	12,13	SEAL ASSY / WEAR BUSHING	100	Pulled free MUT with 5 ton overpull.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	11:50	12:00	10	430	12,13	SEAL ASSY / WEAR BUSHING	100	Landed 14" WB according to Aker instruction.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	11:30	11:50	20	410	5,06	JET AROUND WELLHEAD	100	Connected TD and washed WH with 1500 lpm/15 bar according to Aker.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	10:15	11:30	75	373	6,1	MAKE UP BHA	100	Made up wash stand, picked up and made up MUT with 14" WB and RIH on 5 7/8 HWDP to 373 m.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	10:00	10:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting and SJA for RIH with 14" WB and MUT.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	08:50	10:00	70	0	6,11	LAY DOWN BHA	100	POOH with STT on 5 7/8 HWDP from 332 m and laid down STT to RCWM. Used mud bucket. Training with new personel.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	08:20	08:50	30	332	5,01	CIRCULATE HOLE CLEAN	100	Installed 1 spongeball in string and circulated out same 3600 lpm/45 bar.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	08:00	08:20	20	368	13	RIG UP AND DOWN CEMENT EQUIPMENT	100	Broke out cement stand. Transfered same to aux.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	06:20	08:00	100	2000	12,13	SEAL ASSY / WEAR BUSHING	100	Set down 15tons landing string weight and set 7bar down landing string. turned 2,5 turn CW pressure dropped, turned 1 turn to 3,5 CW. Monitored for return before increasing pumprate. Washed for 15min 1260lpm/13bar and boost riser with 1000lpm. Rotated string 9,5 turns CW .Opened fail safe and verifyed choke line open. Closed MPR. Pressured up quickly to 300 bar and sat seal assy. Pressure tested Seal assy and WH connector 300 bar /10 min. Bleed down pressure slowly. Opened pipe ram. Pulled free ST-MPT according to Aker.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	05:50	06:20	30	2000	13	RIG UP AND DOWN CEMENT EQUIPMENT	100	Ventillated cmt hose and disconnected cmt hose and controll lines from cmt head. Flushed cmt hose with water.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	05:10	05:50	40	2000	13,2	PRESSURE TEST OF CASING	100	Pressuretested casing to 300 Bar for 10 min. from cmt unit. Pumped 128S litres. 1347 litres in return. Checked for backflow.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	03:50	05:10	80	2000	13,02	PUMP CMT	100	Displaced cmt with 1,34sg OBM with rig pumps acc to DOP D040. Bottom wiper landed in LC @ 4786stk bumped plug @ 6520stk (05:10). Circ pressure 40bar bumped plug and pressured up to 110bar, 70bar above circ pressure and held for 5min.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	01:35	03:50	135	2000	13,02	PUMP CMT	100	Lined up to cmt unit opened 2" remote ball valve on cmt head, realeased ball for bottom plug and started to pump 32,34m³ 1,90sg cement slurry. Realesed dart for top plug and displaced dart with DW, volum pumped 4m³/170bar. Closed low tourqe on cmt head and lined over to MP's.	35/11-B-12 BYIH
19-apr-19	Deepsea Atlantic	00:00	01:35	95	2000	5	CIRCULATE AND CONDITION MUD	100	Continued to circulate 1,5 B/U. Max 1800 LPM - 36 BARS. Observed loss. Decreased flowrate in steps to 1200LPM dynamic loss rate 1,3m³/hr. Started to pump 30m³ 1,25sg low density mud & 20m³ 1,5sg MCS spacer. Closed kelly cock on TD and set 50bar back-pressure.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	23:00	00:00	60	2000	5	CIRCULATE AND CONDITION MUD	100	Circulated 1,5 B/U. Increased flowrate in 200 LPM steps to max 1800 LPM - 36 BARS.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	22:45	23:00	15	2000	12,14	LAND/ PULL CSG ON LANDING STRING	100	Reduced pumprate to 500lpm and landed casing hanger in wellhead acc to Aker instructions. Set down all casing weight + 5 ton landing string weight (hookload 77ton).	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	21:55	22:45	50	1985	5	CIRCULATE AND CONDITION MUD	100	Filled pipe and broke circulation in 200 LPM steps to max 1200 LPM- 19 BAR.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	21:40	21:55	15	1985	6,1	MAKE UP BHA	100	Transfered cmt hose from AUX to MAIN. Connected TD to same.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	20:50	21:40	50	1985	12,14	LAND/ PULL CSG ON LANDING STRING	100	RIH with 13 5/8"x 14"csg and 14" hanger on 5 7/8" HWDP from 1651m to 1985m.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	20:45	20:50	5	1651	6,31	L/D DRILLSTRING	100	L/D sgl to RCWM	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	20:15	20:45	30	1651	12,14	LAND/ PULL CSG ON LANDING STRING	100	RIH with 13 5/8"x 14"csg and 14" hanger on 5 7/8" HWDP from 1623m to 1651m.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	19:50	20:15	25	1623	6,33	CHANGE HANDLING EQUIPMENT	100	Removed 14" FMS slips, lower hanger below rotary and installed master bushing/slips.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	19:15	19:50	35	1623	12,9	PICK UP AND MAKE UP CASING HANGER	100	P/U 14" csg hanger and M/U according to Aker procedure.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	19:00	19:15	15	1610	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting with crew before pick up hanger.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	18:45	19:00	15	1610	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drillfloor prior to pick up hanger.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	18:20	18:45	25	1610	12,12	RIG DOWN CASING/LINER EQUIPMENT	100	Uninstalled CRTi and laid down same to RCWM.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	18:05	18:20	15	1610	5	CIRCULATE AND CONDITION MUD	100	Top up 14" CSG and broke circulation with 200 lpm. Took up/down 235 t/205 t.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	17:45	18:05	20	1610	12,1	RUN CASING IN OPEN HOLE	100	RIH with 14" casing from 1500 m to 1610 m using CRTi. Filled every stand with 1,34 SG mud.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	17:30	17:45	15	1500	12,11	RIG UP CASING/LINER EQUIPMENT	100	Changed to 14" jaws on CSG tong. Calibrated CRTi with new torque for 14" CSG.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	17:20	17:30	10	1500	12,1	RUN CASING IN OPEN HOLE	100	Made up XOS 13 5/8" x 14".	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	17:00	17:20	20	1475	12,1	RUN CASING IN OPEN HOLE	100	RIH with 13 5/8" casing from 1290 m to 1475 m using CRTi. Filled every stand with 1,34 SG mud.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	16:50	17:00	10	1290	12,11	RIG UP CASING/LINER EQUIPMENT	100	OWS checked batteri on CRTi .	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	16:00	16:50	50	1290	12,1	RUN CASING IN OPEN HOLE	100	Ran carefully through 20" shoe and cont. RIH with 13 5/8" casing from 903 m - 1290 m using CRTi. Filled every stand with 1,34 SG mud.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	15:00	16:00	60	890	5	CIRCULATE AND CONDITION MUD	100	Took up and down weights before entering 20" shoe. Break circulation in steps of 200 lpm to 2500 lpm. Stable parameters on every step. Circulated 15 min with 2500 lpm/ 21 bar. Down/up weight 150t/157t .	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	14:35	15:00	25	890	12	RUN CASING IN CASED HOLE	100	RIH with 13 5/5 CSG from 664 m to 890 m using CRTi . Filled every stand with 1,34 SG mud.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	14:15	14:35	20	664	12	RUN CASING IN CASED HOLE	100	Visual check on threads 13 5/8 CSG	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	12:30	14:15	105	664	12	RUN CASING IN CASED HOLE	100	RIH with 13 5/5 CSG from 74 m to 664 m using CRTi . Filled every stand with 1,34 SG mud.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	12:00	12:30	30	74	8,08	DOWN TIME - Casing running - Tech	100	Troubleshot on CSG tong /computer. Made up first connection using CSG tong.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	11:50	12:00	10	74	12,6	MAKE UP SHOETRACK	100	Made up first connection using CSG tong.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	10:50	11:50	60	38	12,11	RIG UP CASING/LINER EQUIPMENT	100	Installed batteri pakage and Calibrated CRTi torque against cyberbase.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	10:30	10:50	20	38	12,6	MAKE UP SHOETRACK	100	Engaged CRTi to shoetrack and RIH with same. Checked that shoe did not fil with mud.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	09:15	10:30	75	0	12,11	RIG UP CASING/LINER EQUIPMENT	100	Rigged up for 13 5/8 CSG. Installed CRTi tool according to OWS. Installed FMS and CSG tong.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	09:00	09:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting for rig up and RIH 13 5/8 CSG.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	08:30	09:00	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drillfloor prior to next operation.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	07:50	08:30	40	0	6,11	LAY DOWN BHA	100	Broke out and laid down MUT with NBP. Broke out and laid down wash stand.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	07:35	07:50	15	47	1	RIG UP AND TEAR DOWN.	100	Removed wipers and plate from rotary.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	07:25	07:35	10	58	6,31	L/D DRILLSTRING	100	Broke out and laid down 5GL to RCWM.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	06:50	07:25	35	58	6,83	POOH with BHA	100	POOH with MUT and NBP on 5 7/8" HWDP from 401m to 58 m	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	06:20	06:50	30	364	8,03	DOWN TIME_OTHERS	0	Rearrange pipe in fingerboard due to malfunction of latches.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	06:10	06:20	10	401	6,33	CHANGE HANDLING EQUIPMENT	100	Installed 1x wiper in rotary. Dropped 3½" drift in stand #9.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	06:00	06:10	10	430	12,13	SEAL ASSY / WEAR BUSHING	100	Pulled NBP free according to Aker procedure. NBP realeased with 17T OP.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	05:20	06:00	40	401	6,82	RIH with BHA	100	RIH with MUT on 5 7/8" HWDP T/430m MD	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	05:00	05:20	20	67	12,13	SEAL ASSY / WEAR BUSHING	100	P/U and M/U Aker MUT and sngl 5 7/8" HW to Jet sub std.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	04:40	05:00	20	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drillfloor. Meanwhile function tested blind shear ram on yellow pod from tool pushers panel and accustics.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	04:25	04:40	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief with involved personnel after handling 16" BHA and trip out og hole/Prejob meeting before RIH and retrieve NBP.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	04:10	04:25	15	0	6,11	LAY DOWN BHA	100	POOH with 16" BHA and transported same to AUX WC.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	04:00	04:10	10	23	6,33	CHANGE HANDLING EQUIPMENT	100	B/O XO, M/U 6 5/8" LS and changed handling equipment to 6 5/8".	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	03:30	04:00	30	25	6,83	POOH with BHA	100	POOH with BHA on 5 7/8" HWDP and L/D jar F/220m T/25m	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	03:00	03:30	30	220	6,01	POOH CH	100	POOH with 16" BHA on 5 7/8" DP T/220m MD. Compensated BHA through BOP.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	02:45	03:00	15	628	6,41	FLOW CHECK	100	Flow checked well against TT before pull BHA through BOP. Meanwhile performed prejob meeting before handle BHA.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	02:35	02:45	10	628	6,01	POOH CH	100	POOH F/875m T/628m MD with 16"BHA.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	02:00	02:35	35	875	15,01	FUNCTION TEST BOP	100	Functiontested BOP Ram´s and Annular´s on yellow POD from TP panel.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	01:45	02:00	15	875	6,41	FLOW CHECK	100	Flowchecked well with BHA @ 20"csg shoe.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	00:30	01:45	75	875	6,6	POOH OH	100	POOH from 1916m to 875m.	35/11-B-12 BYIH
18-apr-19	Deepsea Atlantic	00:00	00:30	30	1916	6,04	PUMP SLUG	100	Connected TD to string and slugged pipe with 1,64sg OBM.	35/11-B-12 BYIH
17-apr-19	Deepsea Atlantic	23:45	00:00	15	1916	6,6	POOH OH	100	Pulled first 3 stands wet.	35/11-B-12 BYIH
17-apr-19	Deepsea Atlantic	23:30	23:45	15	2007	6,41	FLOW CHECK	100	Flow checked well against TT. Well statick.	35/11-B-12 BYIH
17-apr-19	Deepsea Atlantic	20:00	23:30	210	2007	5,01	CIRCULATE HOLE CLEAN	100	Took TD survey. Circulated hole clean with 5600 lpm/288 bar/160 rpm/7 knm. Reciprocated string slowly up and down. Performed readings free rotation 30rpm/9,2kNm, Up weight 146ton and Down weight 116ton.	35/11-B-12 BYIH

17-apr-19	Deepsea Atlantic	12:00	20:00	480	2007	2	DRILL ACTUAL	100	Drilled from 1583 m to 2007 m with 4800 lpm/193 bar, 140 rpm/7-9 kNm, 5-7 WOB according to DD instructions. ROP 100 m/h , 50 m/h while stearing. At 1875 m reduced ROP due to increasing ECD and less cuttings on shaker.	35/11-B-12 BY1H
17-apr-19	Deepsea Atlantic	00:50	12:00	670	1583	2	DRILL ACTUAL	100	Drilled from 947 m to 1583 m with 4800 lpm/193 bar, 140 rpm/7-9 kNm, 5-7 WOB according to DD instructions. ROP 100 m/h , 50 m/h while stearing.	35/11-B-12 BY1H
17-apr-19	Deepsea Atlantic	00:00	00:50	50	947	2,4	TIME DRILLING	100	Time drilling from 945 m to 947 m according to DD instructions 3200 lpm/91bar, 80rpm/2-6 kNm, WOB 0-2 ton. 2m/hour.	35/11-B-12 AH
16-apr-19	Deepsea Atlantic	16:30	00:00	450	945	2,4	TIME DRILLING	100	Time drilling from 930m to 945 m according to DD istructions 3200 lpm/91bar, 80rpm/2-6 kNm, WOB 0-2 ton. 2m/hour.	35/11-B-12 AH
16-apr-19	Deepsea Atlantic	16:20	16:30	10	930	2,9	SCR	100	SCR readings	35/11-B-12 AH
16-apr-19	Deepsea Atlantic	12:00	16:20	260	930	2,4	TIME DRILLING	100	Time drilled from 928 m to 930 m according to DD instruction. 3200 lpm/91 bar, 80 rpm/2-6 kNm, WOB 0-2 ton. Increase from 1,5 m/hour to 2 m/hour from 14:00 hrs.	35/11-B-12 AH
16-apr-19	Deepsea Atlantic	07:00	12:00	300	928	2,4	TIME DRILLING	100	Time drilled from 926 m to 928 m according to DD instruction. 3200 lpm/91 bar, 80 rpm/2-6 kNm, WOB 0-2 ton.	35/11-B-12 AH
16-apr-19	Deepsea Atlantic	00:00	07:00	420	926	2,4	TIME DRILLING	100	Time drilled from 921 m to 926 m according to DD instruction. 3200 lpm/90 bar , 60-80 rpm/2-8 kNm, WOB 0-2 ton.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	14:10	00:00	590	921	2,4	TIME DRILLING	100	Lost WOB at 908 m. Start timedrill. Drill cement from 908 m to 917 m with 0-2 ton WOB, 100 rpm / 5-6 kNm, 3200 lpm / 98 bar. Drill with limit on 1,5 m/hour. Attempt to kick off with different parameters - 60-80 rpm, limit ROP from 1,5-10 m/h, attempt to timedrill/ream same spot at 917 m. Time drilled according to DD instruction.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	12:00	14:10	130	908	2,3	DRILL CEMENT	100	Start to drill cement from 890 m to 908 m with 5-12 ton WOB, 60 rpm / 6-16 kNm, 4033 lpm / 140 bar. String stalled out several times. Drill with limit on 60 m/hour. Start to weigh up OBM to 1,34 sg OBM.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	11:40	12:00	20	890	2,3	DRILL CEMENT	100	Start to drill cement from 884 m to 890 m with 5-12 ton WOB, 60 rpm / 6-16 kNm, 4033 lpm / 140 bar.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	11:30	11:40	10	884,5	6,22	WASH DOWN	100	Wash down and tag hard cement at 884,5 m. 4000 lpm - 137bar	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	11:00	11:30	30	855	15,04	KICK DRILL, CHOKE DRILL	100	Close upper annular. Preform choke drill with drilling crew. Open annular.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	10:50	11:00	10	855	2,9	SCR	100	Record SCR with MP 1 and MP 4. MP 1: 20 strokes/7 bar, 30 strokes/8 bar, 40 strokes/10 bar. MP 4: 20 strokes/7 bar, 30 strokes/8 bar, 40 strokes/11 bar.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	10:40	10:50	10	855	6,4	FILL PIPE	100	Fill pipe and break circulation.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	10:10	10:40	30	855	8,03	DOWN TIME, OTHERS	0	Struggle to get correct torque when M/U drillingstand to TD. Investigate to find the reason.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	10:00	10:10	10	855	6,23	ENGAGE TOP DRIVE AND LAND TOOLS	100	Set low elevator position. Make up drilling pup and XO to string. Connect TD to drillingstand.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	09:30	10:00	30	855	6	RIH CH	100	RIH with 16" BHA on 5-7/8" DP from 398 m to 855 m.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	09:25	09:30	5	398	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with 16" BHA from 360 m to 398 m.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	09:20	09:25	5	360	6	RIH CH	100	RIH with 16" BHA on 5-7/8" DP from 221 m to 360 m.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	09:00	09:20	20	221	6,1	MAKE UP BHA	100	RIH with 3 STD 5-7/8" HWDP, P/U jar from RCW and RIH with 2 STD 5 7/8" HWDP. RIH and L/D singel on first stand 5-7/8" DP.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	08:30	09:00	30	37	6,13	TRAINING WITH MANUAL RIG TONGS	100	Held prejob meeting prior to training with rig tong. Training with rig tongs with crew. M/U first 5-7/8" HWDP with rigtongs.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	08:25	08:30	5	37	6,33	CHANGE HANDLING EQUIPMENT	100	Change handlingequipment from 6-5/8" to 5-7/8".	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	08:15	08:25	10	37	6,1	MAKE UP BHA	100	RIH with 16" drilling BHA, L/D handlingsub. Install XO.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	08:00	08:15	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor. Meanwhile change dies in HT and rig up for casing in aux.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	07:45	08:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejob meeting prior for next run.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	07:45	08:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting prior to build 16" BHA. Meanwhile change dies in HT and rig up for casing in aux.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	07:30	07:45	15	0	6,33	CHANGE HANDLING EQUIPMENT	100	Change inserts in elevator from 5-7/8" to 6-5/8". Transfer 16" BHA from aux to main.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	07:10	07:30	20	0	6,11	LAY DOWN BHA	100	POOH with 20" RTTS plug, pull same above RKB and L/D same to RCW.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	06:55	07:10	15	11	6,11	LAY DOWN BHA	100	POOH with 5-7/8 HWDP from 196 m to 11 m.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	06:45	06:55	10	196	6,3	P/U DRILLSTRING	100	P/U and M/U double.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	06:10	06:45	35	196	6,08	POOH CH reduced speed	100	POOH with 20" RTTS from 820 m to 196 m. Compensated through BOP.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	06:05	06:10	5	820	6,31	L/D DRILLSTRING	100	Broke out an laid down double for space out BOP.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	05:45	06:05	20	840	6,04	PUMP SLUG	100	Pumped 5 m3 1,56 SG slug and displaced same. Disconnected TD .	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	05:35	05:45	10	860	12,88	SET/RELEASE MECH PLUGS	100	Released 20" RTTS according to procedure. Waited 10 min for elements to releax. Meanwhile installed wiper and plate in rotary and observed well on TT.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	05:00	05:35	35	865	15	PRESS.TESTING OF CSG UNDER BOP TEST	100	Closed upper annular. Performed pressure test of 20" CSG to 20/90 bar for 5/10 min. Opened UAP.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	04:25	05:00	35	867	12,88	SET/RELEASE MECH PLUGS	100	Made up TD to string. Established circulation to 800 lpm for a few minutes. Positioned string at setting depth for bottom plug at 867 m. Attempted to sit 20" RTTS according to procedure. No Go. Changed setting depth to 865 m and sat 20" RTTS.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	04:15	04:25	10	840	6,3	P/U DRILLSTRING	100	Picked up double for space out setting 20" RTTS.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	03:35	04:15	40	821	6,07	RIH CH Reduced speed	100	RIH with 20 "RTTS with reduced speed according 1,5 min/stand from 215 m to 821 m. Compensated through BOP.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	03:25	03:35	10	215	6,31	L/D DRILLSTRING	100	Broke out and laid down double fro space out BOP.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	02:45	03:25	40	197	6,1	MAKE UP BHA	100	P/U RTTS, made up XOS and RIH on 5 7/8 HWDP.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	02:30	02:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting for run 20" RTTS.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	02:15	02:30	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drillfloor.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	00:40	02:15	95	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rigged down wireline equipment and toolstring.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	00:30	00:40	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed prejobmeeting for rigdown wireline.	35/11-B-12 AH
15-apr-19	Deepsea Atlantic	00:00	00:30	30	0	11,01	WIRE LINE LOGGING	97	Pulled toolstring to surface and secured same in rotary.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	20:15	00:00	225	0	11,01	WIRE LINE LOGGING	97	Performed logging of 20" CSG. POOH to 100 m . Deactivated compensator.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	18:15	20:15	120	0	11,03	WL OPERATIONS	97	Rigged up for wireline. P/ U WL toolstring Acc. to schlumberger and install sheaves. RIH to 100 m and activated compensator.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	18:00	18:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejob meeting prior to P/U WL toolstring. Meanwhile transfer WL items from riserdeck to RCWM.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	12:00	18:00	360	0	7,01	PLANNED MAINTENANCE	0	Planned maintenance. Install canvas on serviceloops in main wellcenter. Change bushings on fastline dampner upper forward main. Check and verify torque on torquewrench. Monthly inspection on both HR. Check accumulator on both HR. Welder fix small crack on main HR main arm. Pull cable from drillfloor to top in derrick for new camera in main wellcenter. Fix bugs for mouse on cyberbase C and keypad for cyberbase B. Axess with yearly inspection of lifting equipment in derrick. Install junction box for EXPRO in drillers cabin. Testdrive with new canvas installed - ok.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	11:30	12:00	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor. Remove clay from drillfloor from pulling of 14" casing.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	11:15	11:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after 20" scrape run, kick drill and build- and lay down of BHA.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	10:45	11:15	30	0	6,11	LAY DOWN BHA	100	B/D jar and magnet assy in pieces. L/D 20" casing scrape and 17-1/2" bit to RCWM.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	10:30	10:45	15	42	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting prior to L/D 17-1/2" Rockbit and 20" Scrape BHA.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	10:15	10:30	15	61	1	RIG UP AND TEAR DOWN.	100	P/U double 5-7/8" DP from RCWM. Remove plate and 2 x wipers under RKB. Rack back last 5 7/8" DP stand.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	10:00	10:15	15	61	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	POOH with 17-1/2" Rock bit on 5-7/8" DP from 364 m to 61 m.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	09:55	10:00	5	364	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with landingmode with 17-1/2" Rock bit and 20" scrape. No overpull observed.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	09:25	09:55	30	402	6,08	POOH CH reduced speed	100	POOH with reduced speed with 20" scrape on 5-7/8" DP from 856 m to 402 m.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	09:15	09:25	10	856	1	RIG UP AND TEAR DOWN.	100	Pull up dobbel 5-7/8" DP. Install plate and 2 x wipers under rotary.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	09:05	09:15	10	878	6,07	RIH CH Reduced speed	100	RIH with 20" scrape on 5-7/8" DP from 402 m to 878 m. Run with 17-1/2" bit to 878 m - 5 m above TOC at 883 m. 20" casing scraped to 867 m.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	08:55	09:05	10	667	15,04	KICK DRILL, CHOKE DRILL	100	Kick drill with drilling crew.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	08:40	08:55	15	667	6,07	RIH CH Reduced speed	100	RIH with reduced speed with 20" scrape on 5-7/8" DP from 402 m to 667 m.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	08:30	08:40	10	402	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with 17-1/2" Rock bit and 20" scrape.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	08:15	08:30	15	364	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH with 17-1/2" Rock bit on 5-7/8" DP from 61 to 364 m.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	07:30	08:15	45	61	6,1	MAKE UP BHA	100	P/U and M/ U 17-1/2" Rock bit, 20" casing scrape and 12-1/8" magno and RIH with same. L/D double 5-7/8" DP on first stand for spaceout.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	07:15	07:30	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Continue with clean and clear of drillfloor. Remove 14" casing clay from drains around rotary.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	07:00	07:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Handover and prejobb meeting.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	06:45	07:00	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drillfloor.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	06:35	06:45	10	0	1	RIG UP AND TEAR DOWN.	100	Removed wipers and plate from rotary.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	06:25	06:35	10	0	6,11	LAY DOWN BHA	100	Broke out and laid down XOS and 5" CMT stinger.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	06:15	06:25	10	24	6,3	P/U DRILLSTRING	100	Picked up and made up double on stand # 1.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	05:45	06:15	30	24	6,01	POOH CH	100	POOH from 859 m to 24 m.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	05:40	05:45	5	859	15,04	KICK DRILL, CHOKE DRILL	100	Kick drill with crew.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	05:20	05:40	20	859	6,04	PUMP SLUG	100	Pumped 5 m3 1,56 SG slug and displaced same.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	05:10	05:20	10	859	6,41	FLOW CHECK	100	Flow checked well. Meanwhile installed wiper and plate in rotary.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	03:30	05:10	100	883	5,01	CIRCULATE HOLE CLEAN	100	Installed sponge ball in string. Connected TD. Positioned string at 883 m. Cut cement at 883 m and circulated out axess cmt and spacer. Circulated until clean mud in return. Circulated with 3500 lpm/45 bar and 40 rpm. Reduced flow when cement /spacer in return. Pulled back 5 m while circulating. Pumped 10500 strokes.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	03:25	03:30	5	896	6,01	POOH CH	100	POOH from 972 m to 896 m . Pulled dry stands.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	03:15	03:25	10	972	13	RIG UP AND DOWN CEMENT EQUIPMENT	100	Racked back CMT stand.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	02:10	03:15	65	992	13,02	PUMP CMT	100	Pumped 14,4 m3 1,65 SG spacer and 20,2 m3 1,95 SG cmt slurry. Disconnected Cmt hose. Displaced cmt with 435 strokes, rotated with 40 rpm.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	01:45	02:10	25	992	13	RIG UP AND DOWN CEMENT EQUIPMENT	100	Made up cmt stand. Positioned string at 992 m. Connected cmt hose and lined up cmt line.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	01:10	01:45	35	956	5	CIRCULATE AND CONDITION MUD	100	Connected TD . Established circulation in steps to 4000 lpm/56 bar and 50 rpm on string. Pumped 3000 strokes.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	01:05	01:10	5	956	6,5	RIH OH	100	Compensated through 20" shoe and into open hole. RIH from 903 m to 956 m.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	00:40	01:05	25	903	6	RIH CH	100	RIH from 400 m to 903 m.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	00:35	00:40	5	400	6,74	COMPENSATE THROUGH BOP	100	Compensated through BOP.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	00:25	00:35	10	360	6	RIH CH	100	RIH with 5" CMT stinger from 25 m to 360 m.	35/11-B-12 AH
14-apr-19	Deepsea Atlantic	00:00	00:25	25	25	6,1	MAKE UP BHA	100	Made up CMT stinger to XOS and 5 7/8 DP. Broke out and laid down double for space out.	35/11-B-12 AH
13-apr-19	Deepsea Atlantic	23:45	00:00	15	0	6,1	MAKE UP BHA	100	Made up 5" cmt stinger and XOS.	35/11-B-12 AH
13-apr-19	Deepsea Atlantic	23:15	23:45	30	0	6,33	CHANGE HANDLING EQUIPMENT	100	Changed to 5 7/8 handling equipment. Removed FMS. Changed from BX 3 to BX 4 elevator.	35/11-B-12 AH
13-apr-19	Deepsea Atlantic	22:45	23:15	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drillfloor. Much clay after pulling CSG.	35/11-B-12 AH
13-apr-19	Deepsea Atlantic	21:45	22:45	60	0	12,05	PULL CASING IN CASED HOLE	100	Pulled 14" and racked back stand in derrick. Laid down cut to RCWM. Much clay on CSG.	35/11-B-12 AH
13-apr-19	Deepsea Atlantic	21:25	21:45	20	150	6,33	CHANGE HANDLING EQUIPMENT	100	Changed to 14" handling equipment. Changed from BX-4 to BX-3 elevator.	35/11-B-12 AH
13-apr-19	Deepsea Atlantic	21:05	21:25	20	150	6,11	LAY DOWN BHA	100	Broke out and laid down Spear assy with cut.	35/11-B-12 AH
13-apr-19	Deepsea Atlantic	20:45	21:05	20	150	12,11	RIG UP CASING/LINER EQUIPMENT	100	Removed master and installed FMS in rotary.	35/11-B-12 AH

								Broke out and laid down Jar, HPT anchor and HPT power tool. Drained power tool prior to lay		
13-apr-19	Deepsea Atlantic	19:15	20:45	90	150	6,11	LAY DOWN BHA	100	down. Racked back 8" DC. Pulled spear and CSG cut.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	19:00	19:15	15	221	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to L/D spear BHA and Powertool.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	18:45	19:00	15	221	6,11	LAY DOWN BHA	100	Rack back 8" DC stand.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	18:40	18:45	5	272	6,33	CHANGE HANDLING EQUIPMENT	100	Remove powerslips. Change from 5-7/8" to 6-5/8" inserts in BX elevator.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	18:30	18:40	10	272	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting prior to L/D fishing BHA.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	18:15	18:30	15	291	1	RIG UP AND TEAR DOWN.	100	Remove RKB and remove plate and 2 x wipers under RKB. P/U double 5-7/8" DP from RCWM. L/D XO.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	17:45	18:15	30	291	19,01	FISHING, OTHERS	100	POOH with 14" casing fish and BHA from 707 m to 291 m on 5-7/8" DP. Observe overpull peaks due to jacks, reduce pulling speed.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	17:30	17:45	15	707	6,41	FLOW CHECK	100	Flowcheck well for 10 min prior to pull non-shearable through BOP. Well static.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	17:15	17:30	15	707	19,01	FISHING, OTHERS	100	POOH with 14" casing fish and BHA from 897 m to 707 m on 5-7/8" DP.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	17:00	17:15	15	897	1	RIG UP AND TEAR DOWN.	100	Installed plate and wiper under RKB. Had to have AHC activated during pumping of slug due to jacks being activated in 20" casing when diff pressure.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	16:45	17:00	15	897	6,04	PUMP SLUG	100	Pump 8,5 m3 with 1,56 sg OBM and displace lines with 3 m3.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	16:30	16:45	15	897	6,41	FLOW CHECK	100	Flowcheck well for 10 min - well static.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	16:20	16:30	10	897	19,01	FISHING, OTHERS	100	Burst rupture disc with 345 bar with cement unit.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	14:35	16:20	105	897	19,01	FISHING, OTHERS	100	Connect TD. Engage spear according to Baker. Attempted to pull 14" CSG free with stepwise increase in hookload to 364 ton hookload. Attempt to pull rapid from 150 ton to 364 ton three times - not able to pull free. Pump with MP to verify ball landed. Lined up Baker CMT unit down string. Held 290 ton hookload. Pump down string to activate HPT anchor. Baker cement unit pump in steps to 290 bar and verify jack working. Bleed off pressure and observed casing pulled approx 0,66 m. Use HP jack total off 5 times before pulled 14" casing free with 358 ton hookload. Pulled 1,5 stands to pull 14" casing into 20" shoe. Adjust bitdepth to 14" casing cut depth.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	14:25	14:35	10	779	6,4	FILL PIPE	100	Fill pipe and check pipe not plugged. Meanwhile held prejob prior to land and pull 14" CSG in OH. Drop 1-1/8" ball.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	13:40	14:25	45	779	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH with full bore 17 1/4" HPT anchor from 136m to 779m. Comp. trough BOP.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	12:00	13:40	100	136	6,1	MAKE UP BHA	100	Cont. P/ U from RCW. P/ U HPT power section, HPT anchor, 8" Drilling jar, 1 STD 8" DC and XO, LD dobbel and RIH with same.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	11:30	12:00	30	45	6,1	MAKE UP BHA	100	Change to 6-5/8" inserts. P/U Spear and RIH with 8" DC STD.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	11:15	11:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobb meeting prior to run in and pull 14" CSG in OH.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	11:00	11:15	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rig floor prior for next Operation.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	10:50	11:00	10	0	6,11	LAY DOWN BHA	100	Rack back wash stand in derrick.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	10:40	10:50	10	39	12,13	SEAL ASSY / WEAR BUSHING	100	POOH with MPT and L/D to RCWM.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	10:15	10:40	25	50	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	POOH with MPT and wash stand from 360 m to 50 m with reduced speed. Pull with wiper on top of slips - fell off several times.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	10:10	10:15	5	360	6,74	COMPENSATE THROUGH BOP	100	Compensate out of BOP with wash stand.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	09:50	10:10	20	390	12,13	SEAL ASSY / WEAR BUSHING	100	Record upweight 76 ton, downweight 74 ton. RIH and land NBP with 10 ton, release NBP with 6 ton overpull. Compensate out of BOP.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	09:30	09:50	20	390	6,22	WASH DOWN	100	Connect TD. Activate AHC. Wash setting area with 2500 lpm - 25 bar for 10 min. RIH and disconnect TD.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	09:20	09:30	10	360	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH with 18-3/4" NBP on 5-7/8" DP from 50 m to 360 m.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	08:55	09:20	25	50	12,13	SEAL ASSY / WEAR BUSHING	100	P/U 18-3/4" NBP and MUT, check and RIH with same.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	08:45	08:55	10	39	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held SJA meeting prior to P/U premade 18-3/4" NBP to MUT.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	08:35	08:45	10	39	6,1	MAKE UP BHA	100	Transfer wash STD from derrick and RIH with same.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	08:20	08:35	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejob meeting prior to next operation.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	08:15	08:20	5	0	12,12	RIG DOWN CASING/LINER EQUIPMENT	100	Rig down casing equipment. Remove FMS and change from BX-3 to BX-4.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	07:50	08:15	25	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rig floor prior to next operation.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	07:40	07:50	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held debrief after POOH with 14" casing.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	07:00	07:40	40	0	12,05	PULL CASING IN CASED HOLE	100	Cont. POOH with 14" from 246m to RKB. R/B CSG cut. Casing cut approx 6 m.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	05:10	07:00	110	246	12,05	PULL CASING IN CASED HOLE	100	POOH with 14 " CSG. Broke out and racked back 1 stand 14" CSG. Not able to break connection on next stand with CSG tong. OWS increased pressure on CSG tong to max. No go . Changed break point on 14" CSG. Broke out and racked back double. Continued POOH with 14" CSG.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	04:50	05:10	20	410	12,05	PULL CASING IN CASED HOLE	100	Broke out and laid down 14" CSG hanger.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	04:20	04:50	30	410	12,11	RIG UP CASING/LINER EQUIPMENT	100	Adjusted wheels on CSG tong.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	03:40	04:20	40	413	6,33	CHANGE HANDLING EQUIPMENT	100	Changed to 14" handling equipment. Changed from BX-4 to BX-3 elevator.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	03:20	03:40	20	413	6,11	LAY DOWN BHA	100	Released spear according to Baker instruction and laid down same to RCWM.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	02:30	03:20	50	413	12,11	RIG UP CASING/LINER EQUIPMENT	100	Removed bushings and master bushing. Pulled 14 CSG hanger through rotary. Installed FMS. Rigged up control panels for CSG tong.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	02:10	02:30	20	413	12,14	LAND/ PULL CSG ON LANDING STRING	100	Broke out and laid down bumper sub and 5 7/8 DP sgl.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	02:00	02:10	10	430	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting for Rig up 14 CSG equipment and release spear.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	01:30	02:00	30	430	12,14	LAND/ PULL CSG ON LANDING STRING	100	POOH with 14" CSG from 774 m to 430 m on 5 7/8 HWDP.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	01:00	01:30	30	774	6,04	PUMP SLUG	100	Pumped 10 m3 1,56 SG slug and displaced same.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	00:45	01:00	15	381	6,41	FLOW CHECK	100	Flowcheck	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	00:30	00:45	15	383	12,14	LAND/ PULL CSG ON LANDING STRING	100	Took up/down weight 84/83 ton. Landed out stop sub and engaged spear according to Baker. Closed UAP and pulled free 14" CSG with 134 ton hook load. Opened UAP.	3S/11-B-12 AH
13-apr-19	Deepsea Atlantic	00:00	00:30	30	360	6,1	MAKE UP BHA	100	RIH on 5 7/8 Hwdp from 100 m to 360 m.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	23:30	00:00	30	100	6,1	MAKE UP BHA	100	P/U and made up Taper mill/spear assy, 1 sgl 5 7/8 DP and bumper sub. RIH on 5 7/8 HWDP.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	23:15	23:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrif after L/D SA. Prejobmeeting for build 14" spear assy.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	23:00	23:15	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drillfloor.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	21:30	23:00	90	0	12,13	SEAL ASSY / WEAR BUSHING	100	Compensated through BOP with SA. Disconnected TD from string. POOH with SA on 5 7/8 DP used mudbucket. Broke out and laid down MPT and SA. Broke out and laid down Cup assy. Aker inspected tool.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	21:10	21:30	20	440	6,41	FLOW CHECK	100	Flow checked against closed choke. Opened annular and flow checked well on TT.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	17:45	21:10	205	440	12,13	SEAL ASSY / WEAR BUSHING	100	RIH with pack of assy and seal retriving tool with string vented and test Pack off assy to 5 bar. Baker Rep. to drop 1 3/8 ball keep string vented and compensated trough BOP. Landed MPT in Seal assy and retrive Seal assy Acc. to Aker. Closed lower annular, pressure up string 100 bar Acc. to Aker Rep. Pulled/ Strip seal assy 1m with closed annular and open choke. Closed choke and observed for pressure build up. 0 Bar. Pressured up to 200 bar and opened circ sub. Started circulating via choke with 600 lpm/4 bar and constant standpipe pressure. Circulated total 2900 stroke until mud in return. Max gas 17% while circulating.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	17:15	17:45	30	337	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held pre-jobb meeting prior to pull seal assy with involved personel.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	17:00	17:15	15	337	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH with pack of assy and seal retriving tool from 61m to 337m.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	16:30	17:00	30	61	6,1	MAKE UP BHA	100	P/ U from RCW spear pack off assy and RIH with same on 1 STD 5 7/8" DP and P/ U Aker seal retriving tool from RCW, inspect and run same trough RKB.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	16:15	16:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejob meeting prior to next run.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	16:00	16:15	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rig floor prior to next run.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	15:25	16:00	35	0	6,11	LAY DOWN BHA	100	Pull 13 3/8" WB/ MUT above RKB and releace WB and L/ D same. Pull MUT above RKB and L/ D same. Pull wash STD above RKB and R/ B same.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	15:05	15:25	20	14	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	POOH with 13 3/8" WB/ MUT on 5 7/8" DP from 365m to 14m.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	14:25	15:05	40	365	12,13	SEAL ASSY / WEAR BUSHING	100	Run in and sat down 10T on 13 3/8" WB and pulled free WB with 27 OP. Pull 1 STD and R/ B and same, conected top drive to string and wash with jet-sub in WH-area for 10 minutes.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	14:10	14:25	15	365	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH with MUT on 5 7/ 8" from 14m to 365m.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	13:50	14:10	20	14	6,1	MAKE UP BHA	100	RIH with wash std from derrick. Pick up MUT from catwalk and M/ U same to string.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	13:35	13:50	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting before RIH with MUT.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	13:20	13:35	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillflor. Meanwhile flush kill and choke line.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	13:10	13:20	10	0	6,11	LAY DOWN BHA	100	Lay down cut assy to catwalk.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	12:30	13:10	40	30	6,01	POOH CH	100	POOH with 14" cutter assy on 5-7/8" DP from 797 m to 30 m. Compensate through BOP.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	12:15	12:30	15	797	6,04	PUMP SLUG	100	Pump 4 m3 with 1,56 sg slug and displace surfacelines with 3 m3.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	12:00	12:15	15	797	6,41	FLOW CHECK	100	Flowcheck well after cut of 14" Well static. Meanwhile install plate and 2 x wipers under RKB.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	11:30	12:00	30	797	12,3	CUT CASING	100	Connect TD. Position cutter at 797m. Record upweight 87 ton, downweight 85 ton. Freetorque 2 kNm. Cut casing with 100 rpm / 4-20 kNm, 1000 lpm / 40 bar. Observed pressuredrop and heard casing drop. Continue to cut for 5 min. Verify cut with pressure - ok. Casing dropped approx 0,30 m.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	11:15	11:30	15	797	6,08	POOH CH reduced speed	100	POOH with 14" cutter on 5-7/8" DP from 958 m to 797 m. Use mudbucket.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	11:00	11:15	15	958	6,41	FLOW CHECK	100	Flow check well. Well statick. Ok.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	10:00	11:00	60	958	12,3	CUT CASING	100	Connect TD. Position cutter at 958 m. Record upweight 90 ton, downweight 87 ton. Freetorque 2 kNm. Fill pipe with 1,26 sg OBM at cutter position. Cut casing with 100 rpm / 4-20 kNm, 1000 lpm / 40 bar. Observed pressuredrop. Continue to cut for 5 min. Verify cut with pressure - ok.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	09:15	10:00	45	913	6	RIH CH	100	RIH with 14" Cutter on 5 7 /8" DP from 11m to 913m. Comp. through BOP.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	08:55	09:15	20	11	6,1	MAKE UP BHA	100	P/U and M/U up 14" cutter assy.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	08:40	08:55	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejob meeting prior to run in with 14" cutter.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	08:30	08:40	10	0	6,11	LAY DOWN BHA	100	Lay down 10-3/4" casur from derrick.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	08:15	08:30	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillflor.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	07:45	08:15	30	0	6,11	LAY DOWN BHA	100	Remove plate and 2 x wipers under RKB. P/U double 5-7/8" from RCWM and R/B 1 stand 5-7/8" DP, L/D driftsub with drift inside, L/D EZSV running tool to RCWM.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	07:00	07:45	45	20	6,01	POOH CH	100	POOH with EZSV running tool from 990m 20m. Compensate through BOP.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	06:45	07:00	15	990	6,04	PUMP SLUG	100	Pumped 6 m3 slug 1,56 SG and displaced same. Meanwhile installed wiper and plate in rotary.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	06:10	06:45	35	997	12,88	SET/RELASE MECH PLUGS	100	Connected TD. Positioned 14" EZSV plug at 997 m . Took up/down weight 89/86 ton. Established flow to 700 lpm/15 bar. Moved string up/down past setting depht for 5 min. Sat 14" EZSV plug according to procedure at 997 m. Pulled free RT with 25 ton Op . Pulled up 5 m, ran slowly down and sat down 10 ton and verified plug sat.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	05:30	06:10	40	970	6,07	RIH CH Reduced speed	100	RIH from 398 m to 970m with reduced speed 1,33 min/stand according to DOP.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	05:25	05:30	5	398	6,74	COMPENSATE THROUGH BOP	100	Compensated through BOP.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	05:05	05:25	20	360	6,07	RIH CH Reduced speed	100	RIH with 14" EZSV plug from 24 m to 360 m .	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	04:55	05:05	10	24	6,31	L/D DRILLSTRING	100	Broke out and laid down double on stand 1# for space out BOP.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	04:45	04:55	10	6	6,33	CHANGE HANDLING EQUIPMENT	100	Changed to 5 7/8 auto slips and installed auto pipe doper.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	04:15	04:45	30	6	6,1	MAKE UP BHA	100	Made up 14" EZSV plug to RT. Made same up to stand #1 with driftsub.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	04:00	04:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed debrif after 12 1/4" BHA and prejobmeeting prior to make up 14 EZSV plug to RT and RIH with same.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	03:45	04:00	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drillfloor.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	02:40	03:45	65	0	6,11	LAY DOWN BHA	100	POOH with 12 1/4 bit assy on 5 7/8 hwdp from 360 m to 20 m. Broke out and laid down jar ,xos and bit assy to RCWM.	3S/11-B-12 AH
12-apr-19	Deepsea Atlantic	02:25	02:40	15	360	1	RIG UP AND TEAR DOWN.	100	Removed wipers and plate from rotary.	3S/11-B-12 AH

12-apr-19	Deepsea Atlantic	02:15	02:25	10	360	6,74	COMPENSATE THROUGH BOP	100	Compensated through BOP.	35/11-B-12 AH
12-apr-19	Deepsea Atlantic	01:55	02:15	20	400	6,01	POOH CH	100	POOH from 808 m to 400 m.	35/11-B-12 AH
12-apr-19	Deepsea Atlantic	01:45	01:55	10	808	6,41	FLOW CHECK	100	Flow checked well prior to pull BHA through BOP.	35/11-B-12 AH
12-apr-19	Deepsea Atlantic	00:50	01:45	55	808	6,01	POOH CH	100	POOH from 1790 m to 808 m. Training with new personel while tripping.	35/11-B-12 AH
12-apr-19	Deepsea Atlantic	00:25	00:50	25	1790	6,04	PUMP SLUG	100	Pump 6 m3 slug, 1,55 sg.	35/11-B-12 AH
12-apr-19	Deepsea Atlantic	00:10	00:25	15	1790	6,41	FLOW CHECK	100	Flow check well and install 2 wipers in rotary.	35/11-B-12 AH
12-apr-19	Deepsea Atlantic	00:00	00:10	10	1795	5,01	CIRCULATE HOLE CLEAN	100	Circulate hole clean with 3500 lpm/135 bar and 50 rpm. Reciprocated string slowly while circulating.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	23:15	00:00	45	1818	5,01	CIRCULATE HOLE CLEAN	100	Circulated 1 B/U with 3500 lpm/135 bar and 50 rpm. Reciprocated string slowly while circulating.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	22:45	23:15	30	1827	6,22	WASH DOWN	100	Increased to 2400 lpm/ 69 bar and 50 rpm and continued wash down from 1818 m to 1827 m with 100 m/h observed increasing WOB from 2-4 ton. Tagged cement with 10 ton with 400 lpm and no rotation.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	22:00	22:45	45	1818	6,22	WASH DOWN	100	Connected TD. Filled pipe. Washed down from 1754 m with 200 m/h ,350 lpm/4 bar, 30 rpm/6 kNm and 0-2 t WOB. At 1818 m WOB increased to 5 ton.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	21:45	22:00	15	1754	13,01	WAIT ON CEMENT	97	Waited on cement. RIH from 1678 m to 1754 m with reduced speed.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	17:20	21:45	265	1678	13,01	WAIT ON CEMENT	97	Wait on cement. Meanwhile connect TD and fill pipe. General maintenance on drillfloor. Pressuretest standpipemanifold to 20 bar/5 min and 345 bar/10 min. Perform NDT check according to IFS. Climbers in derrick work with yearly certification of lifting equipment and installing new pull system for aux hang-off line. DROPS on HRs.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	16:35	17:20	45	1678	6	RIH CH	100	RIH with 12-1/4" rock bit on 5-7/8" DP from 732 m to 1678 m.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	16:20	16:35	15	732	6,15	CHECK OF HANDLING EQUIPMENT	100	Observed pipe slide approx 20 cm in slips. Engange elevator and inspect slips and DP. Check for correct dies. No foundings - everything ok.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	16:05	16:20	15	732	6	RIH CH	100	RIH with 12-1/4" rock bit on 5-7/8" DP from 400 m to 732 m.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	16:00	16:05	5	400	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with 12-1/4" rock bit on 5-7/8" HWDP from 362 m to 400 m.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	15:35	16:00	25	362	6,1	MAKE UP BHA	100	RIH with 12-1/4" rock bit on 5-7/8" HWDP from 22 m to 360 m.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	15:00	15:35	35	22	6,1	MAKE UP BHA	100	P/U 12-1/4" rock bit assy, M/U XO and M/U jar assy. Prepare powerslips and pipedoper.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	14:45	15:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejob meeting prior to run in with 12 1/4" rock bit.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	14:30	14:45	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rig floor prior to run in hole with 12-1/4" rock bit.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	13:45	14:30	45	0	6,11	LAY DOWN BHA	100	P/U double 5-7/8" DP from RCWM and insert to drillstring. Remove plate and 2 x wipers under RKB. L/D driftsub. 4-1/8" drift found in driftsub. Remove bushings and L/D EZSV running tool.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	13:00	13:45	45	20	6,01	POOH CH	100	POOH with EZSV running tool on 5-7/8" DP from 1269 m to 20 m. Compensate through BOP.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	12:45	13:00	15	1269	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held debrief with crew. Discuss how to optimize tripping. Meanwhile change powerslips.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	12:15	12:45	30	1269	6,01	POOH CH	100	POOH with EZSV running tool on 5 7/8" DP from 1778m to 1269m.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	12:00	12:15	15	1778	6,04	PUMP SLUG	100	Line up and pump 5 m3 1,56 sg OBM slug. Meanwhile install plate and 2 x wipers under RKB.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	11:45	12:00	15	1778	6,41	FLOW CHECK	100	Flow check well. Well statick. Ok.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	10:15	11:45	90	1778	5	CIRCULATE AND CONDITION MUD	100	Install 1 ea wiper ball. Connect TD. Circulate 1 x B/U with 2500 lpm / 50 bar, 40 rpm / 4 kNm. Total pumped 10091 stroke.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	09:45	10:15	30	1778	6,08	POOH CH reduced speed	100	POOH with EZSV RT on 5-7/8" DP from 2058 m to 1778 m. Rack back cementstand and L/D singel DP. POOH with 2,5 min/stand.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	08:50	09:45	55	2058	13,02	PUMP CMT	100	Verify cement lineup with 10 bar. Mix and pump 22,1 m3 with 1,93 sg cement slurry. Disconnect cementhose. Zero strokecounters. Displace cement with 1,26 sg OBM with 2500 lpm / 53 bar. Rotate with 40 rpm. Catch up cement after 750 strokes. Total pumped 1090 strokes.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	08:30	08:50	20	2058	13,02	PUMP CMT	100	Pump 12,4 m3 with 1,65 sg spacer. Set 50 bar on auto KC. Line up MP for pumping 1,26 sg OBM.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	08:15	08:30	15	2058	13	RIG UP AND DOWN CEMENT EQUIPMENT	100	Install CMT hose and preform line test to 100 bar - ok.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	08:00	08:15	15	2058	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejob meeting prior to rig up for cement job and pump cement.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	07:45	08:00	15	2058	6,1	MAKE UP BHA	100	Pull out with 1 stands and transfer CMT STD from setback and run in on setting depth of CMT plug at 2058 m.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	07:15	07:45	30	2062	12,88	SET/RELASE MECH PLUGS	100	Connect topdrive. RIH to 2058 m. Wash 5 m below and 5 m above 14" EZSV plug settting area at 2062 m with 800 lpm / 12 bar. Record upweight 114 ton, downweight 100 ton. Set plug at 2062 m bottom plug. Set plug with 37 turns CW rotation according to Baker. Pull up and release from plug with 29 ton overpull. Pick up 5 meters and retag plug at 2062 m with 5 ton.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	06:45	07:15	30	2030	6,3	P/U DRILLSTRING	100	Changed in tally due to new setting depth for setting 14 "EZSV plug. P/U singel 5-7/8" DP from RCWM instead of L/D double.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	04:55	06:45	110	2030	6,07	RIH CH Reduced speed	100	RIH with 14" EZSV plug with reduced speed 1,3 min /stand according to DOP from 405m to 2030 m .	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	04:45	04:55	10	405	6,74	COMPENSATE THROUGH BOP	100	Compensated through BOP with 14" EZSV plug.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	04:30	04:45	15	365	6,07	RIH CH Reduced speed	100	RIH with 14" EZSV plug with reduced speed 1,3 min /stand according to DOP from 24 m to 365 m .	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	04:20	04:30	10	24	6,31	L/D DRILLSTRING	100	Broke out and laid down double on stand #1 for space out BOP.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	04:05	04:20	15	6	6,33	CHANGE HANDLING EQUIPMENT	100	Installed 5 7/8 autoslips and auto pipe doper.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	03:15	04:05	50	6	6,1	MAKE UP BHA	100	Made up drift sub to stand #1 . Picked up RT for EZSV plug and made up same to driftsub/stand #1. Made up EZSV plug to RT .	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	03:00	03:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrif after rig down wireline. Prejob for RIH with 14 EZSV plug.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	02:15	03:00	45	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rigged down toolstring and wireline equipment.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	02:00	02:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting to rig down wireline equipment.	35/11-B-12 AH
11-apr-19	Deepsea Atlantic	00:00	02:00	120	0	11,01	WIRE LINE LOGGING	97	RIH with WL logging string to 2068 m and log for Fm bonding in green clay and Lista shale, log for barite settling at 20" csg shoe and log for gas below seal assy.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	17:45	00:00	375	0	11,01	WIRE LINE LOGGING	97	RIH with WL logging string to 2068 m and log for Fm bonding in green clay and Lista shale, log for barite settling at 20" csg shoe and log for gas below seal assy.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	16:45	17:45	60	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rig up toolstring and sheavs for WL. Surfacetest of tools.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	16:30	16:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting prior to rig up and run WL.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	16:15	16:30	15	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Install shackle sub in elevator. Lift wireline assys from deck to RCWM.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	16:00	16:15	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	15:20	16:00	40	0	6,11	LAY DOWN BHA	100	Rack back jar and double magnet assy in derrick. L/D 14" drift and scrape assy to RCWM.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	14:55	15:20	25	37	6,11	LAY DOWN BHA	100	POOH with 14" drift assy with 5-7/8" HWDP from 360 m to 37 m. P/U singel from RCWM. Meanwhile held prejobmeeting for L/D BHA.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	14:50	14:55	5	360	6,74	COMPENSATE THROUGH BOP	100	Compensate BOP.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	14:20	14:50	30	398	6,01	POOH CH	100	Continue POOH from 890 m to 398 m.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	12:50	14:20	90	890	8,01	MECHANICAL REPAIRS	0	Troubleshoot mud lopp guide system. Broken wire inside guidesystem. Remove guide ring and secure same.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	12:35	12:50	15	890	6,41	FLOW CHECK	100	Flowcheck well 10 min. Well statc.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	12:00	12:35	35	890	6,01	POOH CH	100	Continue POOH from 1571 m to 890 m.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	11:30	12:00	30	1571	6,01	POOH CH	100	POOH from 2068 m to 1571 m.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	11:15	11:30	15	2068	6,04	PUMP SLUG	100	Pump 5 m3 1,56 sg OBM slug.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	11:00	11:15	15	2068	6,41	FLOW CHECK	100	Flowcheck well. Well static. Meanwhile install wiper and remove aut doper.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	09:30	11:00	90	2068	5	CIRCULATE AND CONDITION MUD	100	Fill string and establish circulation up in steps to 5200 lpm - 228 bar. Total pumped 12000 strokes.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	08:30	09:30	60	2065	6,07	RIH CH Reduced speed	100	Cont RIH from 891m to 2065m with reduced speed due to possability of oval casing. Change T/T @ 09:00AM. Up weight 103 ton - down weight 86 ton.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	07:55	08:30	35	891	6	RIH CH	100	Cont RIH from 398m to 891m	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	07:45	07:55	10	398	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP from 361m to 391m. Change T/T. Meanwhile calibrated HT main.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	07:00	07:45	45	361	6,82	RIH with BHA	100	RIH with 5-7/8" HWDP. L/D singel on first stand 5-7/8" HWDP.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	06:15	07:00	45	37	6,1	MAKE UP BHA	100	Pick up junk mill from catwalk. RIH with magnet assy from derrick. Change to aux HR due to broken hose on lower guide head HR main.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	06:00	06:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejob meeting prior to run 14" drift run.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	05:45	06:00	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rig floor prior to run 14" drift run.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	05:20	05:45	25	0	6,11	LAY DOWN BHA	100	L/D MUT to RCW and R/B wash STD to setback.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	04:50	05:20	30	58	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	POOH with MUT from 323m to 58m. Use wiper on top of slips.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	04:10	04:50	40	323	12,13	SEAL ASSY / WEAR BUSHING	100	Connect topdrive to string and wash WH area with 2500 lpm / 25 bar, no rotation. Connect topdrive on last stand. Record upweight 75 ton, downweight 74 ton. Run in and land 13-3/8" WB in WH, pull free with 9 t OP.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	03:50	04:10	20	323	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH with 13 3/8" WB on 5-7/8" DP from 58m to 323m.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	03:20	03:50	30	58	12,13	SEAL ASSY / WEAR BUSHING	100	Transfer wash STD from setback to well center and RIH with same. P/U 13 3/8" WB and P/U MUT from RCW and install 13 3/8" WB to MUT and RIH with same.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	03:15	03:20	5	0	12,12	RIG DOWN CASING/LINER EQUIPMENT	100	Change from BX-3 to BX-4 elevator, remove FMS and park 10-3/4" casing tong,	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	02:45	03:15	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor after POOH with modified wiper on top of FMS.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	02:30	02:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held debrief with crew after POOH with 10-3/4" tie-back and held prejob for rig down casing equipment.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	02:20	02:30	10	0	12,05	PULL CASING IN CASED HOLE	100	L/D 6 m with 10-3/4" cut joint to RCWM.	35/11-B-12 AH
10-apr-19	Deepsea Atlantic	00:00	02:20	140	6	12,05	PULL CASING IN CASED HOLE	100	POOH with 10-3/4" tie-back casing from 1340 m to 6 m. Rack back double on last stand. Meanwhile start to pressuretest choke manifold to 20 bar/5 min and 300 bar/10 min.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	23:20	00:00	40	1340	12,05	PULL CASING IN CASED HOLE	100	POOH with 10-3/4" CSG from 1664m to 1340m.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	22:50	23:20	30	1664	12,9	PICK UP AND MAKE UP CASING HANGER	100	P/U and L/D 10-3/4" hanger to RCWM.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	22:45	22:50	5	1673	12,11	RIG UP CASING/LINER EQUIPMENT	100	Rig up casingequipment. Change elevator from BX-4 to BX-3. Casingtong ready on drillfloor.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	22:30	22:45	15	1673	19,01	FISHING, OTHERS	100	Release spear and rack back in derrick.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	22:00	22:30	30	1673	6,33	CHANGE HANDLING EQUIPMENT	100	Change from 5-7/8" DP slips to FMS slips.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	21:45	22:00	15	1673	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting with crew prior to rig up for casing.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	20:25	21:45	80	1673	19,01	FISHING, OTHERS	100	POOH with B-Spear and 10-3/4" CSG on 5-7/8" DP. Pulled 4 m and observed 20 ton OP. Attempted to pass LPR with several attempts. Bride moved rig slightly in opposite direcion. Worked string up and down and pulled string above obstruction. Pulled B- Spear/ 10 3/4" CSG on 5-7/8" DP from 2070m to 1687m. Soft start and stop.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	20:05	20:25	20	2076	6,04	PUMP SLUG	100	Line up and pumped 10 m3 with 1,56 sg slug prior to pull out of hole with 10-3/4" CSG.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	19:45	20:05	20	2076	6,41	FLOW CHECK	100	Flow check well. well static. Ok.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	18:35	19:45	70	2076	5,02	DISPLACE WELL/RISER	100	Start dispacing well from 1.06 sg NaCl to 1.26 sg OBM with 3400 LPM / 103 bar. Total pumped 10 937 strokes.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	18:10	18:35	25	2076	5,02	DISPLACE WELL/RISER	100	Displace Booster and kill/chock lines from 1.06 sg NaCl to 1.26 sg OBM.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	18:00	18:10	10	2076	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting peior to displacing well from 1.06 sg NaCl to 1.26 sg OBM.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	17:50	18:00	10	2076	6,41	FLOW CHECK	100	Flowcheck well for 10min. Well statc.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	17:45	17:50	5	2076	19,01	FISHING, OTHERS	100	Engade spear and pull 10%" CSG free with 181 ton hookload. P/U 3m.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	17:30	17:45	15	389	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with spare and landed nogo on 10 3/4" hanger.	35/11-B-12 AH

09-apr-19	Deepsea Atlantic	17:20	17:30	10	366	6	RIH CH	100	RIH with Spear assy on 5 7/8" DP from 25m to/366m. Training with new personell.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	17:15	17:20	5	25	6,33	CHANGE HANDLING EQUIPMENT	100	Installed 5 7/8" power slips.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	16:45	17:15	30	25	6,1	MAKE UP BHA	100	Pick up spear assy, 5 7/8" dp, bumber sub and make up same according to Baker rep.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	16:30	16:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to make up spear assy.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	16:15	16:30	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rigfloor.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	15:15	16:15	60	0	6,11	LAY DOWN BHA	100	Lay down SA and pack off tool.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	15:10	15:15	5	63	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	POOH with SA on 5 7/8" DP.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	15:05	15:10	5	366	6,74	COMPENSATE THROUGH BOP	100	Compensate Swab cup assy through BOP.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	14:50	15:05	15	404	6,74	COMPENSATE THROUGH BOP	100	Compensate seal assy/MPT through BOP, sow 2ton @ LA held 2ton and slided through.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	14:20	14:50	30	431	6,41	FLOW CHECK	100	Flowcheck well via killine to TT1. Opened Annular and flowchecked well against TT2. Waited 30 min to let LA element retrack.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	12:15	14:20	125	431	5,01	CIRCULATE HOLE CLEAN	100	Sheard ballseat with 144bar. Circulated down with 1,06sg NaCl until pressure increase on choke line gauge. @ 650LPM redused flow due to 10% gas in mud and increasing gas level in shaker room. Max gas reading in shaker room 11%. Stopped mudpump and closed in on rigchoke, observed 3bar shut in pressure. Opened Rigchoke and started mud pump with 250LPM, increased to 330LPM. Experienced Pitsensor drop out in OBM Reserve 3. Confirmed return in pit. Stop pumping establish logging in OBM reserve pit# 3. Start pumping with 330LPM increase gradually up to 700LPM. No pressure increase on SPP. @15m³ active pit volume/13:23PM, pit sensors are reading pit volum normaly. Totaly pumped 44.8m³.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	12:00	12:15	15	434	12,13	SEAL ASSY / WEAR BUSHING	100	Cont. pull seal assembly free while stripping trough LA while monitoring TT. Increase hookload in 5 ton steps up to 140ton nogo, worked up/down between 120-140ton. Seal assy released @ 140ton hookload 60ton overpull. Baseoil from annulus equlize to open chokemanifold. Pressured up to 195bar to open circ sub.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	11:55	12:00	5	435	12,13	SEAL ASSY / WEAR BUSHING	100	Pull seal assembly free while stripping trough LA while monitoring TT. Increase hookload in 5 ton steps.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	11:10	11:55	45	435	12,13	SEAL ASSY / WEAR BUSHING	100	Dropped Baker 1 3/8" ball and RIH with and space out for closing lower annular. Closed LA with 1480PSI up-weight 80ton down-weight 70ton. Open LA. Vent up killine via poorboy-TT1. Pressure up to 100bar inside DP against ball/seat. Maintain 100bar on DP and land MPT tool acc to Aker rep. Close LA and pressure up 10bar against LA to verify LA sealing. Bleed off pressure trough kill/choke. Keep choke open via PB nad TT1.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	10:30	11:10	40	405	12,13	SEAL ASSY / WEAR BUSHING	100	Connect TD open auto IBOP and compensated pack-off tool through BOP tested pack off with 10bar down string.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	10:00	10:30	30	366	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob prior to RIH and release seal assy.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	09:40	10:00	20	366	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH with Swab cup and MPT on 5 7/8" DP from/63m to/366m.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	08:45	09:40	55	63	6,1	MAKE UP BHA	100	P/U swab cup assy from RCWM and M/U 2 connections, set slips and installed 5 7/8" DP std. P/U MPT from RCWM and installed M/U same.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	08:30	08:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after POOH and release wearbushing.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	08:15	08:30	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	07:40	08:15	35	0	6,11	LAY DOWN BHA	100	Cont POOH with MUT assy and release wearbushing on DF. L/D MUT assy and wearbushing to RCWM.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	07:00	07:40	40	14	12,13	SEAL ASSY / WEAR BUSHING	100	POOH with wear bushing on 5 7/8" DP from/383m to/14m.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	06:30	07:00	30	383	12,13	SEAL ASSY / WEAR BUSHING	100	Realised wearbushing from WH. Pulled free with 27ton overpull. Washed wellhead with 2500lpm/14bar.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	05:45	06:30	45	430	25,22	DROP's Inspection	0	Continue to perform visual inspection of bumper frames in main wellcenter. Meanwhile wash and flush trip tanks.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	01:15	05:45	270	430	15,11	PRESSURE TEST BOP	100	Pressure test BOP to 20 bar/5 min and 300 bar/10 min. Rig up and start simultaneous pressuretest TD auto and manual KC and kellyhose while pressuretest BOP to 20 bar/5 min and 300 bar/10 min. Meanwhile preform general maintenance in drilling areas. Visual inspection of bumperframe in main wellcenter, maintenance on fastline dampners in main wellcenter, fix small hydraulic leak on TD, change transmitter on HPU tank for aux DW. Rig down equipment after pressuretest of TD.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	00:20	01:15	55	430	15,11	PRESSURE TEST BOP	100	RIH with MUT on 5-7/8" DP from 50 m to last stand prior to land MUT. Record upweight 74 ton, downweight 74 ton. Activate AHC and land MUT in wellhead. Set down all stringweight and open elevator and position TD at drillfloor.	35/11-B-12 AH
09-apr-19	Deepsea Atlantic	00:00	00:20	20	50	15,11	PRESSURE TEST BOP	100	RIH with jet stand from derrick and pick up MUT from catwalk.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	23:45	00:00	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor. Meanwhile functiontest BSR with blue pod from acustic on bridge.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	23:30	23:45	15	0	6,11	LAY DOWN BHA	100	Remove plate and 2 x wipers under RKB. POOH, check and L/D 10-3/4" Cutter assy to RCWM.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	23:10	23:30	20	9	6,01	POOH CH	100	POOH with 10-3/4" Cutter assy from 390 m to 9 m. Trouble with kelly hose pendeling to wrong side of service loop - use personel to observe in derrick during trip.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	23:00	23:10	10	352	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with 10-3/4" Cutter assy.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	21:40	23:00	80	390	6,08	POOH CH reduced speed	100	POOH with 10-3/4" Cutter assy from 1445 m to 390 m. POOH with reduced speed due to dope every connection due brine in well. Trouble with kelly hose pendeling to wrong side of service loop - use personel to observe in derrick during trip. Meanwhile preformed BOP test #2 - 20 bar/5 min, 300 bar/10 min.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	21:30	21:40	10	1445	1	RIG UP AND TEAR DOWN.	100	Installed 2 x wipers under RKB.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	21:15	21:30	15	1445	6,08	POOH CH reduced speed	100	POOH with 10-3/4" Cutter assy from 1729 m to 1445 m. POOH with reduced speed due to dope every connection due brine in well. Attempted to pull with wiper over slips, but need to have wiper under RKB.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	20:50	21:15	25	1729	6,04	PUMP SLUG	100	Connect topdrive. Pump 5 m3 with 1,20 sg brine and displace with 3 m3. Pump with low rate due to cutting in hole.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	20:30	20:50	20	1729	6,08	POOH CH reduced speed	100	POOH with 10-3/4" Cutter assy from 2083 m to 1729 m. POOH with reduced speed due to dope every connection due brine in well. Stopped at 1729 m when start to pull wet. Meanwhile start to pressure test failsafe on BOP/body test on new choke valves (BOP test #1 - 20bar/5 min, 690 bar/10 min).	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	20:00	20:30	30	2083	6,41	FLOW CHECK	100	Flowcheck well. Well statick. Ok.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	19:50	20:00	10	2083	12,3	CUT CASING	100	Cut 10-3/4" CSG with 703 LPM- 23 bar. 120 RPM- 8 kNm. Observed pressure drop.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	19:15	19:50	35	2083	12,3	CUT CASING	100	Drop 2" ball. M/U TD and activate compensator. Activate knifes acc to Baker. Pump 2" ball with 300 lpm and 30 RPM. Observed pressure increased to 23 bar.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	18:55	19:15	20	2083	6,41	FLOW CHECK	100	Flowcheck well for 10 min. Well Static. Meanwhile held prejob meeting prior to next operation.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	16:45	16:50	5	2053	6,07	RIH CH Reduced speed	100	Cont. RIH with 10¼" cutter assy on 5 7/8" DP from 1978m to 2053m.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	16:30	16:45	15	1978	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to start cutting 10¼" CSG. Meanwhile fill pipe.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	16:25	18:55	150	2083	5,02	DISPLACE WELL/RISER	100	Position bottom of string @2083m bit depth. M/U TD and establish circulation with 3000lpm/68bar. Circ 15min with 1.30 sg WBM prior to start displacing. Displace kill/chopke and BOOST to 1,06 sg NaCl .Start pumping 1.06 sg NaCl and displace well. total strokes pumped 8600 strokes.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	16:10	16:25	15	2053	6,07	RIH CH Reduced speed	100	Cont. RIH with 10¼" cutter assy on 5 7/8" DP from 1902m to 2053m with reduced speed last stands.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	15:25	16:10	45	1902	6	RIH CH	100	Cont. RIH with 10¼" cutter assy on 5 7/8" DP from 1032m to 1902m.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	15:10	15:25	15	1032	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief with crew after WL operations. Meanwhile M/U TD and fill pipe and empty TT.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	14:40	15:10	30	1032	6	RIH CH	100	Cont. RIH with 10¼" cutter assy on 5 7/8" DP from 363m to 1032m.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	14:30	14:40	10	387	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	14:10	14:30	20	363	6	RIH CH	100	RIH with 10¼" cutter assy on 5 7/8" DP from 11m to 363m.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	13:25	14:10	45	11	6,1	MAKE UP BHA	100	P/U Rockbit assy from deck. Break bit assy and install 10¼" cutter in middle. installed pipe doper prior to RIH.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	13:10	13:25	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor prior to RIH with cutting assy.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	13:00	13:10	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting with crew prior to P/U 10¼" Cutting assy.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	12:20	13:00	40	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rig down WL end WL equipment.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	12:00	12:20	20	0	11,03	WL OPERATIONS	97	Start POOH with Camera on WL from 380m to RKB.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	07:30	12:00	270	380	11,03	WL OPERATIONS	97	Run #1 - RIH with wireline camera and inspect BOP. POOH and cleaned lens. Run #2 - RIH with wireline camera and inspect BOP.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	07:10	07:30	20	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	R/U for running WL.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	07:00	07:10	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting with crew prior to rigging up WL and RIH with camera on WL to inspect BOP.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	06:45	07:00	15	0	11,02	RIG UP OR DOWN FOR WIRELINE	100	Start to rig up for wireline. Install shackle sub in elevator.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	06:15	06:45	30	0	6,11	LAY DOWN BHA	100	L/D magnet assy and inspect same. R/B 1 STD 5-7/8" DP and pull 10-3/4" junk basket above RKB, clean junk basket and L/D same to RCW. No debries.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	06:00	06:15	15	60	6,01	POOH CH	100	POOH with BOP Clean out BHA on 5 7/8" DP from 370 m to 60 m.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	05:30	06:00	30	370	6,74	COMPENSATE THROUGH BOP	100	Compensate 16" jetting tool out of BOP. L/D 1 singel 5-7/8" HWDP for spaceout. Compensate 10-3/4" junk basket through BOP.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	03:35	05:30	115	437	5,02	DISPLACE WELL/RISER	100	Displace riser with seawater for camera run. Displace kill- and chokeline theoretical to SW. Pump with 4000 lpm down string and 1500 lpm down kill and choke. Start dumping when interface at shaker. Pump until clear water in return verified by mud engineer and deepwell. Total pumped 579 m3.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	03:05	03:35	30	437	6,22	WASH DOWN	100	Wash BOP with 1,30 sg WBM with 11 rpm / 1 kNm, 4000 lpm down string / 38 bar. Rotate and reciprocate 8 passes through BOP.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	02:50	03:05	15	437	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting before washing and displacing well from 437 m prior to camera run.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	02:25	02:50	25	437	6,74	COMPENSATE THROUGH BOP	100	Compensate 10-3/4" junk basket through BOP. P/U 1 singel 5-7/8" HWDP for spaceout. Connect TD. Compensate and tag WB with 16" jetting tool at 383,50 m.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	02:15	02:25	10	365	6	RIH CH	100	RIH with BOP Clean out BHA on 5-7/8" DP from 60 m to 365 m.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	01:45	02:15	30	0	6,1	MAKE UP BHA	100	Pick up 10-3/4" junk basket assy, 1 stand 5-7/8" DP and 16" jetting tool assy from catwalk.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	01:30	01:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting prior to build BOP cleanout BHA.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	01:15	01:30	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor. Clean RKB and top of diverter.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	00:45	01:15	30	0	1	RIG UP AND TEAR DOWN.	100	Install shackle sub, lift up casingtong and send down casingtong from main wellcenter to riserdeck.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	00:30	00:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting prior to send down casingtong from main wellcenter to riserdeck.	35/11-B-12 AH
08-apr-19	Deepsea Atlantic	00:00	00:30	30	0	6,11	LAY DOWN BHA	100	P/U double 5-7/8" DP from RCWM and rack back last stand. POOH with EZSV RT and L/D.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	23:45	00:00	15	25	6,13	TRAINING WITH MANUAL RIG TONGS	100	Held prejobmeeting and performed training with rigtongs. Held debrief.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	23:35	23:45	10	25	1	RIG UP AND TEAR DOWN.	100	Remove plate and 2 x wipers under RKB	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	23:20	23:35	15	25	6,01	POOH CH	100	POOH with EZSV RT on 5-7/8" DP from 390 m to 25 m.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	23:10	23:20	10	352	6,74	COMPENSATE THROUGH BOP	100	Compensate EZSV RT through BOP.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	22:45	23:10	25	390	6,01	POOH CH	100	POOH with EZSV RT on 5-7/8" DP from 1113 m to 390 m.	35/11-B-12 AH

07-apr-19	Deepsea Atlantic	22:30	22:45	15	1113	15,04	KICK DRILL, CHOKE DRILL	100	Performed kickdrill with crew.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	21:35	22:30	55	1113	6,01	POOH CH	100	Disconnect TD. POOH with EZSV RT on 5-7/8" DP from 2073 m to 1113 m.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	21:15	21:35	20	2073	6,04	PUMP SLUG	100	Pump 4,5 m3 with 1,59 sg slug and displace surface lines. Trouble with suction from pit.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	21:00	21:15	15	2073	6,41	FLOW CHECK	100	Flow check well for 10 min prior to pump slug. Well static.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	19:50	21:00	70	2085	5	CIRCULATE AND CONDITION MUD	100	Circulate bottom up with 4000 lpm / 86 bar, 70 rpm / 4-5kNm. Reciprocate string. Circulate until well clean. Pump total of 1,5 times bottoms up, total 9000 strokes.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	19:40	19:50	10	2090	12,88	SET/RELASE MECH PLUGS	100	Set slips on EZSV with 37 rotations zero tourqe according to Baker procedure. Release from plug with 35 ton overpull. Pull up 4 m. Run back in to tag EZSV with 9 ton at 2090 m.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	19:15	19:40	25	2080	12,88	SET/RELASE MECH PLUGS	100	Connect TD to string. UP weight 117ton, down weight 104 ton. Fill string and break circulation with 770 lpm. Brush setting area for EZSV up and down for five min, 6 times, with 800 lpm.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	18:25	19:15	50	2080	6,07	RIH CH Reduced speed	100	RIH with reduced speed with 10 3/4" EZSV/Brush from 1496m to 1890m.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	18:10	18:25	15	1496	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief with crew after Kickdrill. Meanwhile M/U TD and break Circulation.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	18:05	18:10	5	1496	6,76	WELL CONTROL DRILLS	100	Performe Kick drill with drill crew.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	17:25	18:05	40	1496	6,07	RIH CH Reduced speed	100	RIH with reduced speed with 10 3/4" EZSV/Brush from/980m to/1496m	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	17:10	17:25	15	980	5	CIRCULATE AND CONDITION MUD	100	Debrief with crew after B/U EZV plugg assy. Meanwhile M/U TD and break circulation.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	16:25	17:10	45	980	6,07	RIH CH Reduced speed	100	RIH with reduced speed with 10 3/4" EZSV/Brush from/401m to/980m	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	16:10	16:25	15	401	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief with crew after L/D Junk Mill assy. Meanwhile M/U TD and break circulation.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	15:55	16:10	15	401	6,74	COMPENSATE THROUGH BOP	100	Compensate EZSV/Brush through BOP	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	15:40	15:55	15	363	6,07	RIH CH Reduced speed	100	RIH with reduced speed with 10 3/4" EZSV/Brush from/22m to/363m	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	15:00	15:40	40	22	6,11	LAY DOWN BHA	100	RIH with EZSV/Brush to 22m B/U dbl.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	14:30	15:00	30	0	6,1	MAKE UP BHA	100	P/U plug R/T and installed 5 7/8" std. P/U and installed EZSV inc Brush to R/T.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	14:00	14:30	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor. Meanwhile grease TD/Dolly	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	13:30	14:00	30	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after POOH with Drift assy. Prejob prior to RIH with 10 3/4" EZSV.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	12:45	13:30	45	0	6,11	LAY DOWN BHA	100	Lay down jar, breake out X-O and lay down mill same to RCWM.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	12:40	12:45	5	33	6,83	POOH with BHA	100	POOH with Clean out assy on 5 7/8" HWDP from/106m to/33m.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	12:35	12:40	5	106	6,33	CHANGE HANDLING EQUIPMENT	100	Changed to 5 7/8" manual slips.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	12:15	12:35	20	106	6,83	POOH with BHA	100	POOH with Clean out assy on 5 7/8" HWDP from/366m to/106m.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	12:10	12:15	5	366	6,74	COMPENSATE THROUGH BOP	100	Compensate Clean out assy through BOP.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	12:00	12:10	10	403	6,01	POOH CH	100	POOH with Clean out assy on 5 7/8" DP from/552m to/403m.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	11:50	12:00	10	552	6,01	POOH CH	100	POOH with Clean out assy on 5 7/8" DP from/819m to/552m.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	11:35	11:50	15	819	6,41	FLOW CHECK	100	Flowchecked well prior to pull BHA through BOP.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	10:40	11:35	55	819	6,01	POOH CH	100	POOH with Clean out assy on 5 7/8" DP from/2059m to/819m.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	10:15	10:40	25	2059	6,04	PUMP SLUG	100	Pumped slug	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	10:00	10:15	15	2059	6,08	POOH CH reduced speed	100	POOH with 2STD 5 7/8"DP wet	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	09:45	10:00	15	2144	6,41	FLOW CHECK	100	Flowchecked well prior to POOH.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	09:05	09:45	40	2144	6,4	FILL PIPE	100	Connected TD and filled pipe while drifting down to 2144m. Recorded up-weight/126Ton, down-weight/108Ton.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	07:40	09:05	85	2068	6,07	RIH CH Reduced speed	100	RIH with 10-3/4" Driftassy on 5-7/8" DP from/1008 m to/2144m. Run with reduced speed due to possible plastic clamp debries in well.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	07:20	07:40	20	1008	6,4	FILL PIPE	100	Connected TD and filled pipe.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	06:40	07:20	40	1008	6,07	RIH CH Reduced speed	100	RIH with 10-3/4" Driftrun on 5-7/8" DP from 403 m to 1008m. Run with reduced speed due to possible plastic clamp debries in well.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	06:30	06:40	10	403	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with 10-3/4" Drift run.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	05:45	06:30	45	366	6,1	MAKE UP BHA	100	RIH with 10-3/4" Driftrun on 10 stand 5-7/8" HWDP from 32 m to 366 m.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	05:30	05:45	15	32	6,1	MAKE UP BHA	100	Install 5-7/8" powerslips. Run premade 10-3/4" Drift BHA from derrick. L/D handlingpup to RCWM.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	05:00	05:30	30	0	25,22	DROP's Inspection	100	Observed SLS umbilical partly jumped out of sheave in derrick. Use manrider and fix SLS umbilical in sheave to avoid damage to umbilical.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	04:45	05:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting prior to RIH with 10-3/4" Drift run.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	04:30	04:45	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	04:15	04:30	15	0	19,01	FISHING, OTHERS	100	Rig down equipment for pulling control line.	35/11-B-12 AH
07-apr-19	Deepsea Atlantic	00:00	04:15	255	0	19,01	FISHING, OTHERS	100	Pull CL (control line) out of hole with elevator and secure same with tugger, and pull loose CL into cable reel. Observed termination at cabel end. Totalt pulled 57 lenghts of cabel with TD - estimated pulled 2264 m with control line.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	19:15	00:00	285	0	19,01	FISHING, OTHERS	100	Pull CL out of hole with elevator and secure same with tugger, and pull lose CL into cable reel. Attempt to pull with reel several times - nogo. Total pulled 1017 m control line cabel m at 24:00 hrs.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	19:00	19:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejob meeting and go through SJA prior to pull CL with top drive.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	15:40	19:00	200	0	19,01	FISHING, OTHERS	100	Secure CableLine (CL) using tugger. Cut CL with grinder. Connect to CL to lose end from cablereel. R/U to pull CL with TD and secure CL from hole on DF.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	15:35	15:40	5	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob before starting to remove controll cable on Rope spare.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	15:30	15:35	5	0	6,83	POOH with BHA	100	POOH with Rope spare, fish on the lower part on Rope spare	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	15:15	15:30	15	13	6,08	POOH CH reduced speed	100	POOH with Rope spare on 5 7/8"DP reduced speed from/354m to/13m.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	15:00	15:15	15	354	6,74	COMPENSATE THROUGH BOP	100	Compensate Rope spare through BOP.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	14:25	15:00	35	392	6,08	POOH CH reduced speed	100	POOH with Rope spare on 5 7/8"DP reduced speed from/884m to/392m.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	14:15	14:25	10	884	6,41	FLOW CHECK	100	Flowcheck well, well static.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	13:20	14:15	55	950	19,01	FISHING, OTHERS	100	Connect TD RIH set down 5ton wob @ 850m slided down with low increase on WOB to 10 ton @ 950m. Rotated slowly 5 turn and POOH with 97ton upweight.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	12:35	13:20	45	846	6,07	RIH CH Reduced speed	100	Cont RIH from 488m to 871m. Reduced speed due to possibility of CL/fish in hole. Breake circ when indication of plugged string.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	12:20	12:35	15	488	5	CIRCULATE AND CONDITION MUD	100	M/U TD and break circulation to verify DP not pluged.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	12:00	12:20	20	392	6,74	COMPENSATE THROUGH BOP	100	compensate through BOP with Rope spare	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	11:50	12:00	10	200	6	RIH CH	100	RIH with Rope spare on 5 7/8"DP from/13m to/354m	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	11:45	11:50	5	13	6,1	MAKE UP BHA	100	RIH with Rope spare	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	11:20	11:45	25	0	19,01	FISHING, OTHERS	100	Removed control cable with grinder.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	11:10	11:20	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob before starting to remove controll cable on Rope spare.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	11:00	11:10	10	0	6,83	POOH with BHA	100	POOH with Rope spare, fish on the lower part on Rope spare	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	10:10	11:00	50	13	6,08	POOH CH reduced speed	100	Cont POOH from 730m to 388m. Reduced speed due to use of mud bucket and fish.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	10:00	10:10	10	730	6,41	FLOW CHECK	100	Flowcheck Well for 10min prior to POOH.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	09:35	10:00	25	869	19,01	FISHING, OTHERS	100	Record Up/Down weight 90/88 ton. Rotate 5 rpm and RIH carefullyacc to baker. Set down max 5 ton downweight 3 times. Record appx 2ton increase on up weight. Work free bird nest acc to Baker fishing. Start POOH from 869m to 730m to ensure bird nest is free.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	09:00	09:35	35	869	6,22	WASH DOWN	100	RIH while pumping with 200lpm from/732m to/869m.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	08:30	09:00	30	732	6,4	FILL PIPE	100	Connect TD and filled pipe due to gain in active system, suspected plugged nozzels in spare. pumped 200stk to fill string. Decided to lubricate down to 869m MD	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	08:10	08:30	20	732	6,07	RIH CH Reduced speed	100	RIH with reduced speed due to junk in hole from/392m to/732m.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	08:00	08:10	10	392	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with Rope spare.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	07:40	08:00	20	354	6	RIH CH	100	RIH with Rope spare on 5 7/8"DP from/13m to/354m	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	07:20	07:40	20	13	6,1	MAKE UP BHA	100	P/U Rope spare from RCWM.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	06:45	07:20	35	0	6,11	LAY DOWN BHA	100	Install handlingpup on BHA to be able to rack. Remove slips. Clean magnets. POOH and rack back 10-3/4" Drift assy in derrick.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	06:30	06:45	15	32	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to rack back 10-3/4" Drift assy.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	05:45	06:30	45	32	6,11	LAY DOWN BHA	100	POOH with 10-3/4" Drift assy on 10 stand 5-7/8" HWDP from 403 m to 32 m. Compensate through BOP.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	05:25	05:45	20	403	6,01	POOH CH	100	POOH with 10-3/4" Drift assy on 5-7/8" DP from 869 m to 403 m.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	05:15	05:25	10	869	6,41	FLOW CHECK	100	Flowcheck well for 10 min - well static. Meanwhile install wiper above RKB for POOH.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	04:45	05:15	30	869	6,21	WORK PIPE	100	Observed string starting to take weight from 780 m. Verify string free up. Continue to push control line down. WOB increased from 1 ton at 780 m to 10 ton at 869 m. Decided to stop pushing control line and instead attempt to fish with rope spear.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	04:30	04:45	15	780	6,07	RIH CH Reduced speed	100	RIH with 10-3/4" Drift assy with reduced speed 0,60 m/sec on 5-7/8" DP from 670 m to 780 m. Check free upweight every 5 stands.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	04:20	04:30	10	670	6	RIH CH	100	RIH with 10-3/4" Drift assy on 5-7/8" DP from 403 m to 670 m.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	03:30	04:20	50	403	6,1	MAKE UP BHA	100	RIH with 10-3/4" Drift assy on 10 stand 5-7/8" HWDP from 32 m to 403 m. Compensate through BOP.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	03:20	03:30	10	32	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting with crew prior to start trip. Train new personel during trip.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	03:10	03:20	10	32	1	RIG UP AND TEAR DOWN.	100	Install pipedoper prior to RIH.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	02:30	03:10	40	32	6,1	MAKE UP BHA	100	P/U 10-3/4" drift BHA assy 1. Change to 9-3/8" junk mill. Check float - ok. Continue to build 10-3/4" scrape, magnet assy, XO and 6-1/2" drilling jar assy.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	02:15	02:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting prior to build BHA for 10-3/4" Drift run.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	02:00	02:15	15	0	25,22	DROP's Inspection	100	DROPS check of main HR head.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	01:45	02:00	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	01:40	01:45	5	0	12,12	RIG DOWN CASING/LINER EQUIPMENT	100	Rig down tubing equipment. Change inserts from 5-1/2" to 5-7/8".	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	01:15	01:40	25	0	31,1	PULL TUBING	100	Pull 5-1/2" tubing from 183 m to surface. Use manual slips and dog clollar.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	01:00	01:15	15	183	1	RIG UP AND TEAR DOWN.	100	Remove plate and 2 x wipers under RKB.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	00:15	01:00	45	183	6,33	CHANGE HANDLING EQUIPMENT	100	Attempt to clean slips. Change to new slips from aux. Nogo. Change from autoslips to manual slips and use dogcollar.	35/11-B-12 AH
06-apr-19	Deepsea Atlantic	00:00	00:15	15	183	31,1	PULL TUBING	100	Pull 5-1/2" tubing from 259 m to 183 m. Rack stands in setback. Trouble setting slips due to low weight in string.	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	22:30	00:00	90	259	31,1	PULL TUBING	100	Pull 5-1/2" tubing from 1217 m to 259 m. Rack stands in setback. Spot check tubing for LRA. No LRA detected.	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	21:45	22:30	45	1217	6,04	PUMP SLUG	100	Install 5-1/2" swegde and pump 5 m3 with 1,59 sg WBM slug. Displace surface line with 3 m3. Meanwhile install plate and 2 x wipers under RKB. L/D 5-1/2" swedge.	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	21:05	21:45	40	1217	31,1	PULL TUBING	100	Pull 5-1/2" tubing from 1475 m to 1217 m. Use mudbucket. Trouble setting slips. Rack stands in setback. Stop due to slug ready.	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	20:55	21:05	10	1475	6,41	FLOW CHECK	100	Preform flow check due to gain in active system (triptank). Gain caused by trim rig. Wait until active volume stable.	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	20:45	20:55	10	1475	31,1	PULL TUBING	100	Pull 5-1/2" tubing from 1512m to 1475 m. Use mudbucket.	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	20:35	20:45	10	1512	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting with crew prior to POOH. Meanwhile trim rig and transfer 5-1/2" swedge from aux to main.	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	20:30	20:35	5	1512	12,11	RIG UP CASING/LINER EQUIPMENT	100	Change inserts from 5-7/8" DP to 5-1/2" tubing.	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	19:40	20:30	50	1512	6,11	LAY DOWN BHA	100	Pull overshoot above rotary and release same from 5-1/2" tubing. L/D cut to RCW. Preform LRA measurement on tubing prior to pull same out of hole. No indication of LRA.	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	19:30	19:40	10	1512	6,33	CHANGE HANDLING EQUIPMENT	100	Change slips from 5-7/8" DP to 5-1/2" casing slips.	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	19:20	19:30	10	1512	31,41	PULL TUBING ON LANDINGSTRING	100	L/D singel 5-7/8" HWDP from Overshot assy.	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	18:15	19:20	65	1521	31,41	PULL TUBING ON LANDINGSTRING	100	POOH with 5-1/2" tubing on 5-7/8" DP from 2175 m to 1521 m. Compensate overshot through BOP. Use mudbucket. Start to prepare slug in pumproom.	35/11-B-12 AH

05-apr-19	Deepsea Atlantic	17:00	18:15	75	2175	6,33	CHANGE HANDLING EQUIPMENT	100	Remove elevator and L/D 50fot bailes to RCWM. Installed 9fot bails and elevator.	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	16:30	17:00	30	2175	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after rigging down wireline equipment. Prejob prior to rig up for 9fot bails and POOH with 5 1/2" tubing.	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	15:30	16:30	60	2175	11,02	RIG UP OR DOWN FOR WIRELINE	97	R/O and L/D WL toolstring. Rig down WL equipment.	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	15:20	15:30	10	2175	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmetting prior to getting WL tool on surface.21	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	14:30	15:20	50	2175	11,03	WL OPERATIONS	97	POOH with wirleine from 2175 m to RKB.	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	12:00	14:30	150	2175	11,03	WL OPERATIONS	97	Continue RIH with wireline to 2175,2 m. Start cutting tubing. Observed approx 10 ton drop inn hookload and godd verifications with wireline that cut made it thorugh.	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	11:15	12:00	45	2175	11,03	WL OPERATIONS	97	RIH with WL toolstring from RKB to 2160mMd while compensating TD.	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	09:55	11:15	80	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rig up WL sheave in padeye sub WL for running WL inside DP/tubing. M/U toolstring.	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	09:45	09:55	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting with personell prior to rigging up WL for RIH with WL toolstring.	35/11-B-12 AH
05-apr-19	Deepsea Atlantic	00:00	09:45	585	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Slip and cut wireline wire. Prepare and surface test new cutter assy prior to RIH. Trubleshoot on tool. Meanwhile clean and clear in drilling areas and general maintenance on drilling equipment.	35/11-B-12 AH
04-apr-19	Deepsea Atlantic	21:15	00:00	165	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Slip and cut wireline wire. Prepare and surface test new cutter assy prior to RIH. Meanwhile clean and clear in drilling areas and general maintenance on drilling equipment.	35/11-B-12 AH
04-apr-19	Deepsea Atlantic	19:40	21:15	95	0	11,03	WL OPERATIONS	97	Transfer weight from TD and T-bar to wireline unit. Remove T-bar and start to pull out of hole with wireline unit. Work toolstring through overshot assy with max overpull 250 lbs. Pull to surface - no tool string, wire released from weaklink in cabel head.	35/11-B-12 AH
04-apr-19	Deepsea Atlantic	19:30	19:40	10	3083	11,03	WL OPERATIONS	97	Pull free wire with TD. Pull in stepts to 3000 kg - 70% of weaklink weight. Observed loss of weight from 65,5 ton to 62,5 ton when pulling. Pulled one more meter with just cable weight to verify.	35/11-B-12 AH
04-apr-19	Deepsea Atlantic	19:15	19:30	15	3083	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting with involved personel prior to attempt to pull free WL string.	35/11-B-12 AH
04-apr-19	Deepsea Atlantic	18:45	19:15	30	3083	11,02	RIG UP OR DOWN FOR WIRELINE	97	Prepare to pull on WL with TD. Rig down WL wiper and BX elevator. Attach WL T-bar clamp to TD bailes. P/U downholeweight of wire and attach T-bar clamp to WL.	35/11-B-12 AH
04-apr-19	Deepsea Atlantic	18:30	18:45	15	3083	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	New prejob/SIA meeting prior to MOC.	35/11-B-12 AH
04-apr-19	Deepsea Atlantic	18:15	18:30	15	3083	41,01	WAIT ON 3.PART	97	MOC change in plans.	35/11-B-12 AH
04-apr-19	Deepsea Atlantic	18:00	18:15	15	3083	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Conduct prejob/SIA meeting with involved personel prior to securing WL with WL clamp and attemt to pull free WL anchor/weak link.	35/11-B-12 AH
04-apr-19	Deepsea Atlantic	13:45	18:00	255	3083	11,03	WL OPERATIONS	97	Attemt to pull free WL toolstring after tool self release engage @ approximatley 1.58PM. NoGo with pulling free toolstring on first attemt. Increase overpull and attemt to pull free.	35/11-B-12 AH
04-apr-19	Deepsea Atlantic	13:30	13:45	15	3083	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Perform prejobmeeting/risk assessment with involved personel prior to attemting to free WL toolstring.	35/11-B-12 AH
04-apr-19	Deepsea Atlantic	12:00	13:30	90	3083	41,01	WAIT ON 3.PART	97	Wait on failed WL cutter assy to time out and release. Monitor triptank. Meanwhile general maintance and clean and clear in drilling areas. Work with upgrade on shakers and cuttings handlig area. Install kellyhose guide in main wellcenter.	35/11-B-12 AH
04-apr-19	Deepsea Atlantic	00:00	12:00	720	3083	41,01	WAIT ON 3.PART	97	Wait on failed WL cutter assy to time out and release. Monitor triptank. Meanwhile general maintance and clean and clear in drilling areas. Meanwhile performe tabletop meeting with crew and statoil discussing different scenarios with POOH with 5 1/2" tubing and current well situation. Drain HPU line and change valve, Performe drops check on main and aux HR. Work with upgrade on shakers and cuttings handlig area. Install kellyhose guide in main wellcenter.	35/11-B-12 AH
03-apr-19	Deepsea Atlantic	18:00	00:00	360	3083	41,01	WAIT ON 3.PART	97	General maintance. Drop check main and aux HR. Drain HPU and install valve. General maintanance in drilling areas.	35/11-B-12 AH
03-apr-19	Deepsea Atlantic	15:15	18:00	165	3083	41,01	WAIT ON 3.PART	97	While cutting tubing @2205mMd, WL unit lost communication trough wireline cable. Last communication with tools @13.10. Meanwhil performe table top meeting with crew and statoil discussin different scenarios with POOH with 5 1/2" tubing and current situation i well. Run trough several safety bulletines with crew.	35/11-B-12 AH
03-apr-19	Deepsea Atlantic	12:00	15:15	195	3083	11,03	WL OPERATIONS	97	RIH with wireline toolstring to 100m and start AHC. Cont. RIH to xxxm and correlate depth with CCL and tubing tally.	35/11-B-12 AH
03-apr-19	Deepsea Atlantic	11:30	12:00	30	3083	11,02	RIG UP OR DOWN FOR WIRELINE	97	Test cutter and anchor on toolstring prior to RIH and cut 5" tubing. Pull out of slips and position elevator to be able to start AHC.	35/11-B-12 AH
03-apr-19	Deepsea Atlantic	10:00	11:30	90	3087	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rig up for running wireline.	35/11-B-12 AH
03-apr-19	Deepsea Atlantic	09:45	10:00	15	3087	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob prior to rig up wire line equipment and M/U tool string and RIH with cutter on WL.	35/11-B-12 AH
03-apr-19	Deepsea Atlantic	07:45	09:45	120	3087	6,33	CHANGE HANDLING EQUIPMENT	100	Rack back 1 stand 5 7/8" DP. Remove BX elevator, install shackle sub in topdrive and change bailes from 9 fot to 50 fot. Install sheave in shackle sub. Install BX elevator.	35/11-B-12 AH
03-apr-19	Deepsea Atlantic	07:00	07:45	45	3087	5,01	CIRCULATE HOLE CLEAN	100	Circulate hole clean with 3500 lpm/ 77 bar . Boost riser with 1000 lpm. Circulate until hole is clean. Total pumped 33 000 strokes.	35/11-B-12 AH
03-apr-19	Deepsea Atlantic	02:20	07:00	280	3091	5,02	DISPLACE WELL/RISER	100	Start displacing Wolf from 1.12 sg NaCl to 1.30 sg Mud with max 1700 lpm/19 bar. @1800 stk observed high gass level at shaker and stoped pumps. When gass level is back to normal, start pumps slowly and increase pumprate in steps. Plastic in returns at shaker. Start boosting riser when 1,30 sg mud in return. Total pumped 24000 strokes.	35/11-B-12 AH
03-apr-19	Deepsea Atlantic	02:10	02:20	10	3091	5,02	DISPLACE WELL/RISER	100	Displace Booster line from 1.12 sg NaCl to 1.30 sg Mud.	35/11-B-12 AH
03-apr-19	Deepsea Atlantic	01:40	02:10	30	3091	5,05	MUD AND FLUID PREPARATION	100	Stop circ on well and cont compensate string. Meanwhile pumproom are dumping NaCl pits to prepare for returns while displacing. Plastic in return from top of cut after 4000 strokes.	35/11-B-12 AH
03-apr-19	Deepsea Atlantic	00:10	01:40	90	3091	5	CIRCULATE AND CONDITION MUD	100	Start circulating with 1.12 sg NaCl. Increase pumprate in steps to 1800 lpm/ 46 bar while monitiring pumppressure and returnflow closlely due to debries in well. Meanwhile Pumproom adding chemicals and preparing 1.30 sg mud prior to displacing.	35/11-B-12 AH
03-apr-19	Deepsea Atlantic	00:00	00:10	10	3091	6,41	FLOW CHECK	100	Shut in well due to gain in T/T. Close lower annular and open choke fail safes. Still increase in T/T. Deside to close upper annular due to readings. Cont flow check well. Add defoamer to mud - gain stops.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	23:20	00:00	40	659	6,41	FLOW CHECK	100	Shut in well due to gain in T/T. Close lower annular and open choke fail safes. Still increase in T/T. Deside to close upper annular due to readings. Cont flow check well. Add defoamer to mud - gain stops.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	23:15	23:20	5	659	19,01	FISHING, OTHERS	100	Pull tubing free with 88 ton overpull.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	23:10	23:15	5	666	19,01	FISHING, OTHERS	100	Est circ 500 lpm/7 bar and start rotating with 10 rpm. RIH and tag top of cut. Verify depth and engade overshot.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	23:00	23:10	10	654	6,06	FILL TRIP TANK	100	Fill T/T #1	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	22:00	23:00	60	662	5	CIRCULATE AND CONDITION MUD	100	Empty T/T Meanwhile conducting prejob/displace meeting. Connect TD and start displacing to 1.12 sg NaCl.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	21:35	22:00	25	652	6	RIH CH	100	RIH to 652m on 5 7/8" DP.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	21:30	21:35	5	395	6,31	L/D DRILLSTRING	100	Compensate BOP. Lay down single.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	21:00	21:30	30	365	6	RIH CH	100	RIH to 365 m on 5-7/8" DP.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	20:45	21:00	15	23	6,1	MAKE UP BHA	100	Make up overshot and inspect same.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	20:35	20:45	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting with crew prior to RIH with overshot to displace well, retrive fish and WL operations.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	20:20	20:35	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear DF. Prepare for next run.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	19:50	20:20	30	0	6,11	LAY DOWN BHA	100	L/D X-treme magnet assy & Jar assy to RCWM. R/B 2 std 6¼"DC. L/D Skirted mill to RCWM.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	19:45	19:50	5	103	6,83	POOH with BHA	100	Cont POOH 5 7/8" HWDP from 251m to 103m.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	19:30	19:45	15	251	6,08	POOH CH reduced speed	100	Cont POOH 5 7/8" DP from 365m to 251m with reduced speed due to use of mud bucket.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	19:25	19:30	5	365	6,74	COMPENSATE THROUGH BOP	100	Compensate trough BOP.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	18:45	19:25	40	412	6,08	POOH CH reduced speed	100	POOH 5 7/8" DP from 660m to 412m with reduced speed due to use of mud bucket.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	18:35	18:45	10	660	6,41	FLOW CHECK	100	Flowcheck, well static.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	17:20	18:35	75	669	35,01	MILLING	100	Mill top fish with 2500 LPM/ 41 bar. 100 RPM/ 3-7 KNM. WOB 2 ton. Milled 1,20 m. Boost with 1000 LPM.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	17:05	17:20	15	650	6,4	FILL PIPE	100	Fill pipe and break circ. Perform readings prior to start milling. Up/down weight: 96/93 ton.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	16:40	17:05	25	650	6	RIH CH	100	Cont. RIH with skirtmill on 5 7/8"dp from 390. to 650m	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	16:30	16:40	10	390	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with skirtmill assy.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	16:15	16:30	15	270	6	RIH CH	100	RIH with skirtmill on 5 7/8"dp from 250m to 390m	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	15:45	16:15	30	250	6,1	MAKE UP BHA	100	P/U skirtmill. magnet and jar from catwalk. RIH w/ 2std 6 1/2"dc and 4 std 5 7/8"hwdp from rkb to 250m	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	15:30	15:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to RIH with Skirted mill assy.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	15:15	15:30	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear DF.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	15:00	15:15	15	0	6,11	LAY DOWN BHA	100	No control lines on run #3. L/D Rope Spear BHA on RCWM	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	14:40	15:00	20	0	6,08	POOH CH reduced speed	100	POOH wet with Rope Spear run #3 on 5 7/8" DP from 354 m.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	14:30	14:40	10	354	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	14:20	14:30	10	390	6,08	POOH CH reduced speed	100	POOH wet with Rope Spear run #3 on 5 7/8" DP from 657 m to 390 m.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	14:00	14:20	20	666	19,01	FISHING, OTHERS	100	Connect TD. Record up/down weight: 83/82 ton. RIH and enter top fish @ 666 m with 0,5 m. No weight/obstructions observed. Pull 1 m above top fish and rotate with 10 RPM/ 1 KNM. Work area 665 m to 1 m below top fish 3 times up/down. No tourqe /OP observed.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	13:50	14:00	10	657	6	RIH CH	100	RIH with Rope Spear run #3 on 5 7/8" DP from 390 m to 657 m.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	13:40	13:50	10	390	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	13:20	13:40	20	354	6	RIH CH	100	RIH with Rope Spear run #3 on 5 7/8" DP to 354 m.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	13:10	13:20	10	0	19,01	FISHING, OTHERS	100	Remove control lines from spear. Approximately 10 m. Decided to make a rerun with rope spear.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	12:50	13:10	20	0	6,08	POOH CH reduced speed	100	POOH wet with Rope Spear run #2 on 5 7/8" DP from 354 m.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	12:40	12:50	10	354	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	12:20	12:40	20	390	6,08	POOH CH reduced speed	100	POOH wet with Rope Spear run #2 on 5 7/8" DP from 657 m to 390 m.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	12:00	12:20	20	666	19,01	FISHING, OTHERS	100	Connect TD. Record up/down weight: 83/82 ton. RIH and enter top fish @ 666 m with 0,5 m. No weight/obstructions observed. Pull 1 m above top fish and rotate with 10 RPM/ 1 KNM. Work area 665 m to 1,5 m below top fish 3 times up/down. No tourqe /OP observed.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	11:45	12:00	15	657	6	RIH CH	100	RIH with Rope Spear run #2 on 5 7/8" DP from 390 m to 657 m.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	11:30	11:45	15	390	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	11:20	11:30	10	354	6	RIH CH	100	RIH with Rope Spear run #2 on 5 7/8" DP from 15 m to 354 m.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	10:45	11:20	35	0	6,11	LAY DOWN BHA	100	Remove controll lines from spear. Decided to make a rerun with rope spear.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	10:30	10:45	15	0	6,11	LAY DOWN BHA	100	POOH with Rope Spear assy. Control lines on spear 15m and a ring/sleev.	35/11-B-12 AH

02-apr-19	Deepsea Atlantic	10:20	10:30	10	15	6,08	POOH CH reduced speed	100	POOH wet with Rope Spear on S 7/8" DP from 354 m to 15 m.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	10:10	10:20	10	357	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP. Rotate rope spear in upper annular area, attempt to fish junk in upper annular.(observed on camera run).	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	10:00	10:10	10	390	6,08	POOH CH reduced speed	100	POOH wet with Rope Spear on S 7/8" DP from 657 m to 390 m.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	09:30	10:00	30	666	19,01	FISHING, OTHERS	100	Connect TD. Record up/down weight: 81/82 ton. RIH and enter top fish @ 666 m with 0,5 m. No weight/obstructions observed. Pull 1 m above top fish and rotate with 10 RPM/ 1 KNM. Work area 665 m to top fish 3 times up/down. Observed 1 small tourqe peak (2-3 KNM)no weight observed when pull up.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	09:15	09:30	15	657	6	RIH CH	100	RIH with Rope Spear on S 7/8" DP from 390 m to 657 m.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	09:05	09:15	10	390	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	08:50	09:05	15	354	6	RIH CH	100	RIH with Rope Spear on S 7/8" DP from 15 m to 354 m.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	08:30	08:50	20	15	6,1	MAKE UP BHA	100	P/U Rope Spear assy from RCWM. Baker rep inspect and prepare for RIH.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	08:15	08:30	15	0	6,11	LAY DOWN BHA	100	P/U xo/handlingpup from RCWM, install on Mill assy, L/D same to deck.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	08:00	08:15	15	10	25,3	PREJOBMEETING . BRIEF/DEBRIEF	100	Debrief after BHA. Prejob meeting for next BHA. Meanwhile deck prepare next BHA on deck.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	07:50	08:00	10	10	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear DF. Meanwhile deck prepare next BHA on deck.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	07:30	07:50	20	10	6,11	LAY DOWN BHA	100	POOH and with Magnet assy and jar assy, L/D to RCWM.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	07:15	07:30	15	30	6,83	POOH with BHA	100	POOH wet on S 7/8" HWDP from 360 m to 30 m.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	07:00	07:15	15	360	6,74	COMPENSATE THROUGH BOP	100	P/U doubbel S 7/8" DP from RCWM. Compensate through BOP.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	06:45	07:00	15	414	6,08	POOH CH reduced speed	100	POOH from 653m to 414 m. Reduced speed du too possible restrictions in well.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	06:30	06:45	15	653	6,41	FLOW CHECK	100	Flow check. Well static.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	06:10	06:30	20	666	6,22	WASH DOWN	100	Connect Top Drive and wash down fro 620 m with 1000 lpm 8 bar. Tag fish @ 666 m.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	05:45	06:10	25	620	6,07	RIH CH Reduced speed	100	Continue RIH with reduced speed due to possible restrictions in well.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	05:30	05:45	15	416	6,31	L/D DRILLSTRING	100	Lay down double S-7/8" DP.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	04:15	05:30	75	397	6,1	MAKE UP BHA	100	Breake of stab and float from DC std. Pick up mill, JAR and X-treme magnet and make up same. RIH on S-7/8" HWDP to 397 m. Compensate BOP.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	04:00	04:15	15	0	25,3	PREJOBMEETING . BRIEF/DEBRIEF	100	Prejob prior to RIH with mill.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	03:45	04:00	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear DF.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	03:05	03:45	40	0	6,33	CHANGE HANDLING EQUIPMENT	100	Change handlig equipment from 5½" casing handling equipment to 5 7/8"	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	02:15	03:05	50	0	19,01	FISHING, OTHERS	100	B/O and L/D three pieces 5½" tubing fish to RCWM.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	02:05	02:15	10	0	6,33	CHANGE HANDLING EQUIPMENT	100	Change handlig equipment from 5 7/8" to 5½" casing handling equipment.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	01:45	02:05	20	0	6,11	LAY DOWN BHA	100	L/D jar assy to RCWM. POOH with spear and fish. Land and secure fish in RKB. Release spear and hold with HR.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	01:30	01:45	15	20	6,83	POOH with BHA	100	Cont. POOH on S 7/8" HWDP from 206m to 20m with reduced speed due to good indications of fish attached to spear. Turn string .¼ turn on every stand prior to soft-setting slips.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	00:55	01:30	35	206	6,08	POOH CH reduced speed	100	Cont. POOH on S 7/8" DP from 357m to 206m with reduced speed due to good indications of fish attached to spear. Turn string .¼ turn on every stand prior to soft-setting slips.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	00:50	00:55	5	357	6,74	COMPENSATE THROUGH BOP	100	Compensate trough BOP.	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	00:10	00:50	40	404	6,08	POOH CH reduced speed	100	POOH from 636m to 404 with reduced speed due to good indications of fish attached to spear. Turn string .¼ turn on every stand prior to soft-setting slips.P/U dobbel @423m	35/11-B-12 AH
02-apr-19	Deepsea Atlantic	00:00	00:10	10	636	19,01	FISHING, OTHERS	100	Spear lached on to fish. P/U 24 ton overpull. Good indications for fish recovered. Deside along with Statoil and Baker representativ to POOH.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	23:50	00:00	10	636	19,01	FISHING, OTHERS	100	M/U TD to string. Record up/down weight 88/86ton. RIH to enter fish @632 while compensating. Set 5 ton downweight and engage spear.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	23:30	23:50	20	603	6	RIH CH	100	L/D dobbel S 7/8" DP. Cont RIH on S 7/8" DP from 395m to 603m .	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	23:25	23:30	5	395	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	23:20	23:25	5	358	6	RIH CH	100	Cont RIH on S 7/8" DP from 206 to 358m.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	23:10	23:20	10	206	6,82	RIH with BHA	100	RIH on S 7/8" HWDP from 20m to 206m.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	23:05	23:10	5	20	6,33	CHANGE HANDLING EQUIPMENT	100	Install autoslips.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	22:45	23:05	20	20	6,1	MAKE UP BHA	100	Pick up and make up spear assy BHA	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	22:35	22:45	10	0	25,3	PREJOBMEETING . BRIEF/DEBRIEF	100	Pre-Job Meeting RIH Spear assy	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	22:20	22:35	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear driffloor. Lubricate travelling block.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	21:30	22:20	50	0	6,11	LAY DOWN BHA	100	R/B 5 7/8" HWDP & L/D tapermill.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	21:25	21:30	5	255	6,3	P/U DRILLSTRING	100	P/U 5 7/8" DP singel.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	21:20	21:25	5	255	6,08	POOH CH reduced speed	100	POOH with Tapermill F/ 370 m to 255 m.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	20:55	21:20	25	416	6,3	P/U DRILLSTRING	100	P/U DP dobble and compensate trupp BOP.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	20:45	20:55	10	416	6,08	POOH CH reduced speed	100	POOH with Tapermill F/626 m to 416m.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	20:36	20:45	9	626	6,41	FLOW CHECK	100	Flow check.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	20:30	20:36	6	637	5	CIRCULATE AND CONDITION MUD	100	Tag top of fish with no-go 636,8 m.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	20:20	20:30	10	607	6	RIH CH	100	Cont RIH on S 7/8" DP from 565 to 607m.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	20:15	20:20	5	565	5	CIRCULATE AND CONDITION MUD	100	M/U TD to string and break circulation while RIH 1 std from 530m to 566m.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	19:55	20:15	20	530	6	RIH CH	100	L/D S 7/8" DP dobbel and cont RIH on S 7/8" DP from 408 to 530m.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	19:50	19:55	5	408	6,74	COMPENSATE THROUGH BOP	100	Compensate trough BOP from 361m to 399m.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	19:45	19:50	5	361	6	RIH CH	100	L/D S 7/8" DP top singel and cont RIH on S 7/8" DP from 219 to 361m.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	19:20	19:45	25	219	6,82	RIH with BHA	100	RIH on S 7/8" HWDP from 24m to 219m.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	18:55	19:20	25	23	6,1	MAKE UP BHA	100	P/U and install S 7/8" xo/Handlingpup on Jar. B/O X/O in bottom of S 7/8" HWDP and M/U to string.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	18:50	18:55	5	15	6,33	CHANGE HANDLING EQUIPMENT	100	Change to S 7/8" DP inserts in BX-elevator.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	18:40	18:50	10	15	6,1	MAKE UP BHA	100	P/U Jar assy, B/O and L/D 5" Handlingpup.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	18:30	18:40	10	0	6,33	CHANGE HANDLING EQUIPMENT	100	Change to 5" DP inserts in BX-elevator.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	17:30	18:30	60	0	6,1	MAKE UP BHA	100	P/U 4 1/2" Tapermill/bumpersub assy, B/O several connections with cag tong to check for junk/ plugged BHA, no junk/plug observed. M/U 4 1/2" Tapermill/ bumpersub BHA.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	17:15	17:30	15	0	6,11	LAY DOWN BHA	100	B/O driftsub, remove 4 1/8" drift from driftsub.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	16:55	17:15	20	0	6,01	POOH CH	100	POOH with driftsub on S 7/8" DP from 430 m, compensate through BOP.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	16:30	16:55	25	430	6	RIH CH	100	RIH with driftsub on S 7/8" DP to 430 m. Compensate through BOP. Drop 4 1/8" drift.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	16:15	16:30	15	0	25,3	PREJOBMEETING . BRIEF/DEBRIEF	100	Debrief after trip with Mill. Prejob meeting prior to RIH with Driftsub and drift 12 stand S 7/8" DP.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	16:00	16:15	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear DF.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	15:30	16:00	30	0	6,08	POOH CH reduced speed	100	POOH wet with Mill BHA on 6 1/2" DC from 89 m to 4 m. L/D Jar to RCWM. Pull Mill above rotary on last stand 6 1/2" DC to inspect and check Mill. Confirmed Mill worn out. Decideed to B/O Mill and R/B remaning Mill BHA on 6 1/2" DC stand.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	15:20	15:30	10	89	6,33	CHANGE HANDLING EQUIPMENT	100	Change to 5" handling equipment.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	15:15	15:20	5	89	6,08	POOH CH reduced speed	100	POOH wet with Mill BHA on S 7/8" DP from 237 m to 89 m.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	15:10	15:15	5	237	6,08	POOH CH reduced speed	100	POOH wet with Mill BHA on S 7/8" DP from 273 m to 237 m.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	15:00	15:10	10	273	15,04	KICK DRILL, CHOKE DRILL	100	Kick drill with crew.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	14:55	15:00	5	273	6,08	POOH CH reduced speed	100	POOH wet with Mill BHA on S 7/8" DP from 427 m to 273 m.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	14:50	14:55	5	350	6,74	COMPENSATE THROUGH BOP	100	P/U singel from RCWM. Compensate through BOP.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	14:30	14:50	20	427	6,08	POOH CH reduced speed	100	POOH wet with Mill BHA on S 7/8" DP from 620 m to 427 m.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	14:20	14:30	10	620	6,41	FLOW CHECK	100	Flowcheck, well static.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	13:30	14:20	50	620	5,01	CIRCULATE HOLE CLEAN	100	Pump 10 m^3 Hi-visc pill, circulate B/U with 3000 LPM/50 bar. 100 RPM/ 2-3 KNM.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	12:00	13:30	90	632	35,01	MILLING	100	Mill ASV with 2500 lpm/ 35 bar, 50-140 RPM/ 1-10 KNM, 5-15 ton WOB. Boost Riser with 1000 LPM. Milled from 631,9 m to 632,7 m. Not able to make progress , stop Milling. Jar 3 times down. Start millling, no progress. Pull up and tag with no rotation/flow. Tag @ 632,7 m, corrected for tide and use of lazer.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	07:45	12:00	255	632	35,01	MILLING	100	Mill ASV with 2500 lpm/ 35 bar, 50-140 RPM/ 1-10 KNM, 5-15 ton WOB. Boost Riser with 1000 LPM.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	07:30	07:45	15	632	35,01	MILLING	100	Connect TD. Fill pipe. Record up/down weight: 95/92 ton. 20 RPM/ 1 KNM. Up/down weight with rotation: 93/93 ton. 1000 LPM/ 9 bar. 2000 LPM/ 25 bar. Tag top of fish with 5 ton @ 631,9 m.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	07:00	07:30	30	604	6	RIH CH	100	Cont RIH on S 7/8" DP from 386m to 604m.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	06:50	07:00	10	386	6,74	COMPENSATE THROUGH BOP	100	Comp through BOP and lay down single. meanwhile empty T/T.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	06:45	06:50	5	348	6	RIH CH	100	RIH with Mill assy on S 7/8" DP from 234 m to 348 m.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	06:30	06:45	15	234	6,82	RIH with BHA	100	RIH with Mill assy on 4 stand S 7/8" HWDP from 86 m to 234 m.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	05:35	06:30	55	86	6,1	MAKE UP BHA	100	Make up BHA : Junk mill, 2 stand 6 1/2" DC, jar, X-Over. (B/O and lay out overshot on jar)	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	05:30	05:35	5	0	25,3	PREJOBMEETING . BRIEF/DEBRIEF	100	Prejob meeeting prior to RIH with Junk Mill assy.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	05:20	05:30	10	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear driffloor.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	05:10	05:20	10	0	6,11	LAY DOWN BHA	100	B/O and lay down spear assy BHA.	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	04:50	05:10	20	25	6,83	POOH with BHA	100	POOH with spear assy on S 7/8" HWDP from 207 m to 25 m	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	04:30	04:50	20	207	6,01	POOH CH	100	POOH from 400 m to 207 m	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	04:20	04:30	10	360	6,74	COMPENSATE THROUGH BOP	100	Pick up double and Comp through BOP	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	03:50	04:20	30	400	6,01	POOH CH	100	Set down 10 ton and release Spear. POOH from 632m to 400m	35/11-B-12 AH
01-apr-19	Deepsea Atlantic	00:00	03:50	230	632	19,01	FISHING, OTHERS	100	Connect Top Drive. Establish pump rate 500 lpm 18 bar. Slowly enter fish and land nogo at 362 m. Engage D-Spear according to baker. P/U wieght in steps from 7 to 32 ton overpull. Wait for Jar to bleed. Jar fired. D-spear maintained 32 ton overpull. Increase overpull in steps to 170 ton according to Baker representativ without results. Reduce weight to 19 ton overpull and start P/U slowly to 170 ton overpull. Maintain overpull for 5min without results. Raduce overpull to 19 ton and retry to P/U to 170 ton overpull slowly and maintaine overpull for 5min. no results. Fire JAR and P/U to 170 OP. Decided to release spear and POOH.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	23:10	00:00	50	605	6,07	RIH CH Reduced speed	100	RIH with D-Spear on S 7/8"DP from 425 m to 605 m. Connect Top Drive on every stand and break circulation.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	22:55	23:10	15	425	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP and L/D double.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	22:40	22:55	15	359	6	RIH CH	100	RIH with D-Spear on S 7/8"DP from 207 m to 359 m	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	22:30	22:40	10	207	6,23	ENGAGE TOP DRIVE AND LAND TOOLS	100	Connect Top Drive and break circulation.-	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	22:10	22:30	20	207	6,82	RIH with BHA	100	RIH with D-Spear on S stand S 7/8" HWDP from 25 m to 207 m	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	21:30	22:10	40	21	6,1	MAKE UP BHA	100	Make new BHA Spear assy according to Baker plan.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	20:30	21:30	60	0	6,11	LAY DOWN BHA	100	NO fish. Run in with BHA. B/O and lay down to RCWM.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	20:15	20:30	15	0	6,83	POOH with BHA	100	Remove autoslips and use manual slips in case of fish. POOH carefully	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	19:50	20:15	25	25	6,08	POOH CH reduced speed	100	POOH from 620 m to 25 m. pull with redused speed, because no good identification if fish is latch or not. Pick up double and comp through BOP. Cont POOH to 25m. Meanwhile conduct extended prejobmeeting/TBT with crew prior to handling possible fish at surface. Fockus on possible risk's and hazards associated with fish on "non fishing equipment"	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	19:40	19:50	10	620	6,41	FLOW CHECK	100	Flow check. Well static.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	18:45	19:40	55	620	19,01	FISHING, OTHERS	100	Connect TD. Record up/down weight. Start pumping with 500 lpm, pressure increase to 300 bar, pluged nozzels. Stop pumping. Attemt to sting in. String steel out. Observed overpull 10 ton. Bleed of jar. Weight suddently decrease. POOH from 632 m to 626 m. Observed that up weight is higer. RIH and try to release fish or get better grip on fish.	35/11-B-12 AH

31-mar-19	Deepsea Atlantic	18:30	18:45	15	607	6	RIH CH	100	RIH with Drift ASV BHA on 5 7/8" DP from 418 m to 607 m.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	18:20	18:30	10	418	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP, L/D double to RCWM.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	18:10	18:20	10	361	6	RIH CH	100	RIH with Drift ASV BHA on 5 7/8" DP from 209 m to 360 m.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	17:55	18:10	15	209	6,82	RIH with BHA	100	RIH with Drift ASV BHA on 5 7/8" HWDP from 24 m to 209 m.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	17:15	17:55	40	24	6,1	MAKE UP BHA	100	P/U and M/U Drift ASV BHA. Use Cag tong on several connection. P/U Bumper assy and Jar assy, RIH with same.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	17:00	17:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to make up Drift ASV BHA.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	16:30	17:00	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear DF. Meanwhile prepare Drift BHA on deck.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	15:30	16:30	60	0	6,83	POOH with BHA	100	POOH with Mill ASV BHA on 5 7/8" HWDP and 6 1/2" DC, from 234 m. Install Handlingsub on Jar, L/D on RCWM. L/D Mill assy.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	15:20	15:30	10	234	6,08	POOH CH reduced speed	100	POOH with mill assy on 5 7/8" dp from 390 m to 234 m. Training new personel on tripping in drillers chair.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	15:10	15:20	10	350	6,74	COMPENSATE THROUGH BOP	100	P/U singel from RCWM. Compensate through BOP. Training new personel on tripping in drillers chair.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	14:50	15:10	20	390	6,08	POOH CH reduced speed	100	POOH with mill assy on 5 7/8" dp from 632m to 390m. Training new personel on tripping in drillers chair.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	13:45	14:50	65	632	35,01	MILLING	100	Milling ASV, 2000 lpm/ 30 bar, start boost riser with 1000 lpm. Use several different parameters 0-10 ton on bit, 60-140rpm. No progress and low torque. Decide to POOH.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	13:35	13:45	10	631	6,41	FLOW CHECK	100	Flow check, well statick.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	13:00	13:35	35	631	35,01	MILLING	100	Start milling ASV, 2000 lpm/ 32 bar, 2 ton WOB, 60-140 rpm, 2-8 kNm torque. Observve 20t overpull and 30knm torque when pull of bottom.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	12:30	13:00	30	631	6,23	ENGAGE TOP DRIVE AND LAND TOOLS	100	Engage top drive, fill pipe, take down/up weight 88/90 ton and tag top of fish @ 631,9 m corrected by tide.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	12:20	12:30	10	603	6	RIH CH	100	RIH with Mill BHA on 5 7/8" DP from 234 m to 348 m. L/D singel to RCWM.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	12:10	12:20	10	387	6,74	COMPENSATE THROUGH BOP	100	Compensate thrug BOP.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	12:00	12:10	10	348	6	RIH CH	100	RIH with Mill BHA on 5 7/8" DP from 234 m to 348 m.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	11:00	12:00	60	234	6,1	MAKE UP BHA	100	P/U and M/U Mill BHA. RIH with 2 stand 6 1/2" DC, P/U and M/U jar, remove XO and RIH with 5 7/8" HWDP.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	10:45	11:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to RIH with Mill ASV BHA.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	10:25	10:45	20	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear DF. Meanwhile prepare next BHA on deck.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	10:10	10:25	15	0	6,83	POOH with BHA	100	POOH wet with D-spear BHA on 5 7/8" HWDP from 207 m. L/D D-spear BHA to RCWM. Prominent indications that Taper Mill had tagged junk.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	10:00	10:10	10	207	6,08	POOH CH reduced speed	100	POOH wet with D-spear BHA on 5 7/8" DP from 359 m to 207 m.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	09:45	10:00	15	359	6,74	COMPENSATE THROUGH BOP	100	P/U double from RCWM. Compensate through BOP.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	09:35	09:45	10	396	6,08	POOH CH reduced speed	100	POOH wet with D-spear BHA on 5 7/8" DP from 625 m to 396 m.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	09:20	09:35	15	625	6,41	FLOW CHECK	100	Flowcheck, well static.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	07:30	09:20	110	632	19,01	FISHING, OTHERS	100	Connect TD, fill pipe. Record up/down weight: 86/85 ton. Start circulate with 500 LPM/ 16 bar, RIH and tag top of fish with 5 ton @ 632 m. Observed pressure increased, pull up and retry with 10 RPM/ 1 KNM, 500 LPM/ 16 bar. Sat down 5 ton, pressure increase. Retry several times with 5-10 ton, 10-20 RPM, pressure increase every time, not able to enter top of fish.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	07:10	07:30	20	605	6	RIH CH	100	Cont RIH on 5 7/8" DP from 396m to 605m.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	07:05	07:10	5	396	6,74	COMPENSATE THROUGH BOP	100	Compensate trough BOP from 359m to 396m.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	07:00	07:05	5	359	6	RIH CH	100	Cont RIH on 5 7/8" DP from 207m to 359m.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	06:45	07:00	15	207	6,82	RIH with BHA	100	RIH with spear assy on 5 7/8" HWDP from 22m to 207	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	05:45	06:45	60	22	6,1	MAKE UP BHA	100	Make up spear BHA and rebuild some pices.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	05:30	05:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to RIH with spear assy.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	05:15	05:30	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rigfloor.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	04:50	05:15	25	0	6,11	LAY DOWN BHA	100	Inspect magnets and lay down same. 11 kg on magnets.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	04:30	04:50	20	15	6,01	POOH CH	100	POOH from 353 m to RKB.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	04:25	04:30	5	353	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	04:00	04:25	25	391	6,01	POOH CH	100	POOH from 631 m to 391 m.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	03:45	04:00	15	631	6,41	FLOW CHECK	100	Flow check. Well static.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	03:10	03:45	35	631	5,01	CIRCULATE HOLE CLEAN	100	Circulate one B/U with 2900 lpm / 40 bar.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	03:05	03:10	5	631	19,01	FISHING, OTHERS	100	Record up/down weight 80/72 ton. Compensate down and softtag top og cut with 2 ton.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	01:50	03:05	75	618	6	RIH CH	100	Cont RIH on 5 7/8" DP from 401m to 618m (adjust clock to summertime 02:00am - 03:00am)	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	01:45	01:50	5	401	6,74	COMPENSATE THROUGH BOP	100	Compensate trough BOP from 353m to 401m.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	01:25	01:45	20	353	6	RIH CH	100	Cont RIH on 57/8" DP from 12m to 353m	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	01:20	01:25	5	12	15,04	KICK DRILL, CHOKE DRILL	100	Performe kick drill with crew.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	00:55	01:20	25	12	6,82	RIH with BHA	100	P/U flat magnet and X/O from deck. M/U flat magnet to magnet assy and RIH with same from RKB to 12m.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	00:45	00:55	10	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean & clear drillfloor.	35/11-B-12 AH
31-mar-19	Deepsea Atlantic	00:00	00:45	45	0	6,11	LAY DOWN BHA	100	Breake venturi assy with rig tong and empty same. L/D Ventury junk basket to deck.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	23:25	00:00	35	0	6,11	LAY DOWN BHA	100	Clean magnets. Breake venturi assy with rig tong and empty same.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	23:00	23:25	25	0	6,08	POOH CH reduced speed	100	POOH from 366 m to RKB. Reduced speed due to use of mudbucket.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	22:45	23:00	15	366	6,3	P/U DRILLSTRING	100	Pick up double and compensate BOP.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	22:30	22:45	15	422	6,08	POOH CH reduced speed	100	POOH with reduced speed due to use of mudbucket. From 625 m to 422 m.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	22:15	22:30	15	625	6,41	FLOW CHECK	100	Flow check. Well static.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	21:45	22:15	30	632	5,01	CIRCULATE HOLE CLEAN	100	Connect Top Drive. Establish pump rate 1600 lpm. Take U/D weight 81 ton -80 ton. Continue RIH and tag top of fish @ 632 m. Wash and reciprocate string according to baker 1600 lpm / 110 bar.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	21:30	21:45	15	632	6,07	RIH CH Reduced speed	100	RIH with Venturi assy from 25 m to 366 m.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	21:15	21:30	15	422	6,31	L/D DRILLSTRING	100	Compensate through BOP and lay down double prior to tag top of fish.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	20:50	21:15	25	366	6	RIH CH	100	RIH with Venturi assy from 25 m to 366 m.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	20:35	20:50	15	25	6,1	MAKE UP BHA	100	M/U and RIH with Venturi assy from RKB to 25m.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	20:30	20:35	5	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting with crew prior to RIH with venturi assy.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	20:15	20:30	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor after milling ASV.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	19:30	20:15	45	0	6,11	LAY DOWN BHA	100	Break out and lay down jar. B/O and rack back 2 stand 6 1/2" DC. B/O and lay out Mill assy to deck.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	19:10	19:30	20	86	6,82	RIH with BHA	100	POOH with Mill assy on 5 7/8" HWDP from 236 m to 86 m	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	19:00	19:10	10	236	6,01	POOH CH	100	POOH with Mill assy on 5 7/8" DP from 365 m to 236 m.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	18:45	19:00	15	365	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with Mill assy from 400 m to 365 m.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	18:15	18:45	30	400	6,01	POOH CH	100	POOH from 625m to 400m use mudbucket.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	18:00	18:15	15	625	6,41	FLOW CHECK	100	Flowcheck, well static.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	17:00	18:00	60	625	5,01	CIRCULATE HOLE CLEAN	100	Pump 7 m³ Hi-visc pill. Circulate 1 X B/U with 2500 LPM/ 230 bar.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	12:00	17:00	300	632	35,01	MILLING	100	Mill ASV with 1000-2000/ 40 LPM, 60-110, 1-12 KNM. RPM. Max 11 ton WOB. Total Milled 2 m. Milled 25 minutes without circulation(burning), due to no progress. Nozzles plugged when start circulation, pressure up and work with pressure, able to circulate with reduced flow, 800 LPM/90 bar.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	09:00	12:00	180	630	35,01	MILLING	100	Mill ASV with 1000-2000/ 40 LPM, 60-110, 1-12 KNM. RPM. Max 8 ton WOB.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	08:45	09:00	15	630	35,01	MILLING	100	Record parameters, up/down weight : 93/91 ton, 20 RPM/ 1 KNM. Up/down weight with 20 RPM : 92/92 ton. 1000 LPM/ 13 bar. 2000 LPM/ 39 bar. 3000 LPM/ 80 bar. RIH and tag top of fish @ 630 m, pull up and establish milling parameters, 2000 LPM/ 38 bar. 80 RPM/ 2 KNM. 2 ton WOB. Boost Riser with 1000 LPM.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	07:30	08:45	75	620	5,02	DISPLACE WELL/RISER	100	Displace Booster. Displace well to 1,38 Sg WBM with 3000 LPM/ 80 bar. Total pumped 86 m³. U-tube kill and choke. Empty triptank`s and fill with 1,38 Sg OBM.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	07:15	07:30	15	620	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to displace well to 1,38 Sg WBM.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	07:00	07:15	15	620	6	RIH CH	100	Cont RIH on 5 7/8" DP from 416m to 620 m.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	06:50	07:00	10	416	6,31	L/D DRILLSTRING	100	L/D single 5 7/8" DP to RCWM.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	06:40	06:50	10	416	6,74	COMPENSATE THROUGH BOP	100	Compensate troug BOP from 350m to 388m.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	06:35	06:40	5	350	6	RIH CH	100	Cont. RIH on 5 7/8" DP from 235m to 350m.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	06:15	06:35	20	235	6,82	RIH with BHA	100	RIH wit Junk Mill on 5 7/8 HWDP from 85 m to 235 m	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	05:20	06:15	55	85	6,1	MAKE UP BHA	100	Pick Junk Mill. Break out pup joint on top of mill assy and lay down. Install 2 stand 6 1/2" DC, X-Over, and Jar.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	05:15	05:20	5	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to RIH with Mill assy and mill ASV.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	05:00	05:15	15	0	25,22	DROP`s Inspection	100	Perform drops on Top Drive after jaring.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	04:00	05:00	60	0	6,11	LAY DOWN BHA	100	Change to manual slips. Pull BHA slowly through rotary. Comfirm no fish. Inspect spear, observed wear and tear on spear. Break out and lay down Jar, bumper and spear assy.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	03:20	04:00	40	26	6,08	POOH CH reduced speed	100	POOH from 431 m to 26 m. With spear assy. Rotate left every 3 strand	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	03:10	03:20	10	365	6,3	P/U DRILLSTRING	100	Pick up double and compensate through BOP.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	02:50	03:10	20	431	6,08	POOH CH reduced speed	100	POOH from 636 m to 431 m. With spear assy. Rotate left every 3 strand	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	01:30	02:50	80	636	19,01	FISHING, OTHERS	100	M/U TD to string and fill pipe. Take up/down weights 92/89ton. Compensate down and slowly enter fish. Tag top of fish with NoGo. Engage B-Spear to fish according to Baker representativ. Attempt to pull fish free. B-spear lost grip @ 25 ton overpull. P/U 2m befor running back down to engade spear again. P/U 20 ton overpull and wait 5min for jar to bled down. Fish lost grip. Latch to fish again and P/U 17-40 ton overpull in steps. Jar hit after 30min. Fish not loose. P/U to 170 ton overpull in steps. Observed that all weight disappear. POOH to check status.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	01:00	01:30	30	610	6,07	RIH CH Reduced speed	100	Cont. RIH on 5 7/8" DP from 424m to 610m. Reduced speed due to potential junk in well.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	00:50	01:00	10	424	6,31	L/D DRILLSTRING	100	L/D dobbel on first 5 7/8" STD.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	00:45	00:50	5	404	6,74	COMPENSATE THROUGH BOP	100	Compensate trouhg BOP from 366m to 404m.	35/11-B-12 AH
30-mar-19	Deepsea Atlantic	00:00	00:45	45	366	6,1	MAKE UP BHA	100	RIH with Spear assy/BHA on 5-7/8" HW from 0-366m. Adjust HR to stab accurate.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	23:45	00:00	15	0	6,1	MAKE UP BHA	100	P/U modified B-spear from deck and make up to spear assy. RIH with Spear assy BHA.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	22:30	23:45	75	0	41,01	WAIT ON 3.PART	97	Modify B-spear in weldershop. Meanwhile perform maintenance, claen and clear on drillfloor. Performe DROPS on main HR.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	21:30	22:30	60	0	6,11	LAY DOWN BHA	100	POOH with spear assy and check for fish from 213 m to RKB. Pull slowly according to baker rep.Boost riser while POOH. No fish. Breake out NOGO and modify same in welder shop.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	21:15	21:30	15	213	6,08	POOH CH reduced speed	100	POOH with spear assy and check for fish from 365 m to 213m. Pull slowly according to baker rep. Turn string left every 3 stand. Boost riser while POOH.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	21:00	21:15	15	365	6,3	P/U DRILLSTRING	100	Pick up double and compensate through WH and BOP.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	20:30	21:00	30	420	6,08	POOH CH reduced speed	100	POOH with spear assy and check for fish from 637 m to 420. Pull slowly according to baker rep. Turn string left every 3 stand. Boost riser while POOH.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	19:50	20:30	40	637	19,01	FISHING, OTHERS	100	M/U TD to string and fill pipe. Take up/down weights 92/89ton. Compensate down and slowly enter fish. Tag top of fish with NoGo. Attemt to engage B-Spear according to Baker representativ sevral times. No indication of B-spear latching on to fish. Deside to POOH to inspect B-spear.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	19:40	19:50	10	611	6	RIH CH	100	Cont RIH with 5 7/8" DP from 424m to 611m.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	19:30	19:40	10	424	6,31	L/D DRILLSTRING	100	RIH with 2 sngl 5 7/8" DP from 404m to 424m. L/D dobbel 5 7/8 DP to RCWM.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	19:20	19:30	10	404	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP from 366m to 404m.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	19:00	19:20	20	366	6,82	RIH with BHA	100	RUI with B-spear on 5 7/8" HWDP from 27m to 366m.	35/11-B-12 AH

29-mar-19	Deepsea Atlantic	17:00	19:00	120	27	6,1	MAKE UP BHA	100	P/U and M/U B-spear BHA according to Baker plan.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	16:45	17:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob prior to RIH with B-spear BHA.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	16:30	16:45	15	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rig down WL toolstring and sheavs.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	16:20	16:30	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob prior to rig down WL equipment.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	15:00	16:20	80	0	11,03	WL OPERATIONS	97	POOH with camera to 381 m and use camera inside BOP. Cont. POOH to 100 m, deactivate compensator and POOH to surface.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	13:00	15:00	120	0	11,03	WL OPERATIONS	97	Cont. RIH with camera on wireline through BOP and check for more debris in BOP. RIH to 600m and use camera to check condition on top of tubing and inside fish.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	12:00	13:00	60	0	11,03	WL OPERATIONS	97	Observed part of controlline in Upper annular. Evaluate situation.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	11:30	12:00	30	0	11,03	WL OPERATIONS	97	RIH with camera on WL to 100 m, start compensating and continue RIH to 600 m. Observed peace of controlline in Upper annular. Evaluate situation.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	11:00	11:30	30	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rig up wireline equip. and test toolstring prior to RIH.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	10:45	11:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to rig up and RIH with wireline toolstring.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	07:00	10:45	225	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Wait on wireline to change wire drum and cablehead for running inspection camera. Meenwhile install bumper structure in aux. Perform NDT on main HR.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	06:00	07:00	60	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Change wireline drum. Meanwhile install bumper structure in aux. General maintanance and DROPS check on rigfloor.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	04:35	06:00	85	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Pull out the last 100 metres. Rig down logging string. Test camera tool on cable head. Decided to change wireline drum.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	04:30	04:35	5	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Pre job meeting prior to lay down toolstring.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	01:00	04:30	210	0	11,01	WIRE LINE LOGGING	97	RIH to 100 m and activate compensator. Continue RIH and record 70 m IBC repeat pass from 600 m. Record main pass from 600 m. POOH to 100 m. Deactivate compensator.	35/11-B-12 AH
29-mar-19	Deepsea Atlantic	00:00	01:00	60	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Continue to rig up wireline toolstring.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	23:40	00:00	20	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rig up for wireline operations.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	23:30	23:40	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting with involved personell prior to R/U wireline	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	23:00	23:30	30	0	6,11	LAY DOWN BHA	100	Remove autoslips. POOH with cleanout assy. Inspect same and lay down to deck.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	22:30	23:00	30	25	6,01	POOH CH	100	POOH from 360 m to RKB	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	22:15	22:30	15	360	6,74	COMPENSATE THROUGH BOP	100	Pick up double 5-7/8" DP and compensate through BOP.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	22:05	22:15	10	422	6,01	POOH CH	100	POOH from 623 m to 422 m.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	21:55	22:05	10	623	6,41	FLOW CHECK	100	Flow check well prior to POOH. Well static	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	18:30	21:55	205	623	5,02	DISPLACE WELL/RISER	100	Empty triptank`s, fill triptank 1 with seawater. Prepare pit`s for displacing. Displace and circulate hole clean enough prior to run camera on wire line. Total pumped 9500 strokes.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	18:15	18:30	15	623	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to displace to Seawater.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	17:25	18:15	50	630	19,01	FISHING, OTHERS	100	Connect TD, fill pipe. Record up/down weight: 83/82 ton. Establish circulation 2000 LPM/ 100 bar, RIH and enter top of fish @ 630,4 m in 0,5 m steps, reduced flow to 1000 LPM/ 24 bar 1 m before tag top of fish with nogo. Tag top of fish with 1 ton, observed pressure increaser. Pull Taper mill above top of fish, start rotate with 20 RPM/ 2 KNM. 3000 LPM/180 bar.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	17:15	17:25	10	611	6	RIH CH	100	RIH with Drift ASV BHA from 422 m to 611 m on 5 7/8" DP.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	17:00	17:15	15	422	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP, L/D double to RCWM.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	16:45	17:00	15	360	6	RIH CH	100	RIH with Drift ASV BHA to 360 m on 5 7/8" DP.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	14:00	16:45	165	25	6,1	MAKE UP BHA	100	P/U and M/U Drift ASV BHA. B/O cutter and spear from BHA. P/U and install taper mill, 4 x extension subs and XO`s, M/U to Persus BHA assy. RIH with same. P/U and M/U Jar assy. B/O and M/U several connection/ different OD with Casing tong.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	13:45	14:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to M/U Drift ASV.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	12:45	13:45	60	0	6	RIH CH	100	B/O Venturi Junk Basket with rigtongs. Major portion less junk. Empty and clean Junk basket. M/U connection with rigtongs. R/B in derrick.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	12:30	12:45	15	0	6,19	POOH With WDP	100	POOH with 8 1/2" Venturi on 5 7/8" HWDP from 210m to RKB. Pulled Venturi junk basket above RF and Baker Fishing representative inspect same. Meawhile held prejobmeeting for B/O BHA.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	12:20	12:30	10	210	6,01	POOH CH	100	POOH with Venturi Junk Basket from 362 m to 210 m on 5 7/8" DP.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	12:00	12:20	20	362	6,74	COMPENSATE THROUGH BOP	100	P/U double to RCWM. Compensate through BOP.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	11:45	12:00	15	420	6,01	POOH CH	100	POOH with Venturi Junk Basket from 628 m to 420 m on 5 7/8" DP.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	11:35	11:45	10	625	6,41	FLOW CHECK	100	Flowcheck, wel static.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	10:45	11:35	50	628	19,01	FISHING, OTHERS	100	Connect TD. Fill pipe and break circulation. Establish circulation, 1700 LPM/ 100 bar. RIH and soft tag with 2 ton @ 630,4 m, pull up 4 m and stop circulation, wait for 2 minutes. Repeat 1 time. RIH to 1 m above top fish with 1900 LPM/ 120 bar 15 RPM/ 1 KNM, pull up 4 meters, repeat 3 times.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	10:30	10:45	15	628	6	RIH CH	100	RIH with Venturi Junk Basket run #2 from 420 m to 628 m on 5 7/8" DP.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	10:20	10:30	10	420	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP, L/D double to RCWM.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	10:10	10:20	10	362	6	RIH CH	100	RIH with Venturi Junk Basket from 210 m to 362 mon 5 7/8" DP.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	10:00	10:10	10	210	6,82	RIH with BHA	100	RIH with Venturi Junk Basket run #3 to 210 m on 5 7/8" HWDP.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	09:40	10:00	20	0	6,1	MAKE UP BHA	100	M/U connection on venturi BHA with rigtongs.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	08:40	09:40	60	0	6,11	LAY DOWN BHA	100	B/O Venturi Junk Basket. Completely full of debris 11,5 kg.(Completion clamps/parts). Emptyed same and decided to rerun.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	08:30	08:40	10	0	6,83	POOH with BHA	100	POOH with Venturi Junk Basket from 210 m on 5 7/8" DP.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	08:20	08:30	10	420	6,01	POOH CH	100	POOH with Venturi Junk Basket from 362 m to 210 m on 5 7/8" DP.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	08:15	08:20	5	362	6,74	COMPENSATE THROUGH BOP	100	P/U double to RCWM. Compensate through BOP.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	08:05	08:15	10	420	6,01	POOH CH	100	POOH with Venturi Junk Basket from 628 m to 420 m on 5 7/8" DP.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	07:55	08:05	10	628	6,41	FLOW CHECK	100	Flowcheck, wel static.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	07:15	07:55	40	630	19,01	FISHING, OTHERS	100	Connect TD. Fill pipe and break circulation. Establish circulation, 1700 LPM/ 100 bar. RIH and soft tag with 2 ton @ 630,4 m, pull up 4 m and stop circulation, wait for 2 minutes. Repeat 1 time. RIH to 1 m above top fish with 1900 LPM/ 120 bar 15 RPM/ 1 KNM, pull up 4 meters, repeat 3 times.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	07:05	07:15	10	628	6	RIH CH	100	RIH with Venturi Junk Basket run #2 from 420 m to 628 m on 5 7/8" DP.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	06:50	07:05	15	420	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP, L/D double to RCWM.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	06:40	06:50	10	362	6	RIH CH	100	RIH with Venturi Junk Basket from 210 m to 362 mon 5 7/8" DP.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	06:30	06:40	10	210	6,82	RIH with BHA	100	RIH with Venturi Junk Basket to 210 m on 5 7/8" HWDP.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	06:15	06:30	15	0	6,13	TRAINING WITH MANUAL RIG TONGS	100	M/U connection on venturi BHA with rigtongs.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	06:00	06:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting with new crew prior to M/U connection with rigtongs.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	05:15	06:00	45	4	6,11	LAY DOWN BHA	100	B/O Venturi Junk Basket. Completely full of debris(Completion clamps/parts). Emptyed same and decided to rerun.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	04:45	05:15	30	25	6,83	POOH with BHA	100	POOH with 8 1/2" Venturi on 5 7/8" HWDP from 210m to RKB. Pulled Venturi junk basket above RF and Baker Fishing representative inspect same. Meawhile held prejobmeeting for B/O BHA.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	04:15	04:45	30	210	6,08	POOH CH reduced speed	100	POOH with Venturi on 5 7/8" DP from 608m to 210m. Compensatet through BOP. Restricted runningspeed due to clamps/parts in hole.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	04:00	04:15	15	628	6,41	FLOW CHECK	100	Flow check well for 10 min. Well static.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	03:30	04:00	30	628	19,01	FISHING, OTHERS	100	Start compensating and take up and down weight. 89/88 ton. Slide down and tag top of fish with 2 ton @630,4m. Correlated for tide. Parameters 1700lpm/100bar. Wash and resiprocate according to Baker fisher representative.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	03:15	03:30	15	608	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob before clean out on top of fish - Debrief after tripping. Meanwhile engage TD and fill string.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	02:30	03:15	45	608	6,07	RIH CH Reduced speed	100	RIH with Venturi on 5 7/8" DP from 210m to 608m. Compensatet through BOP. Restricted runningspeed due to clamps/parts in hole.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	02:00	02:30	30	210	6,82	RIH with BHA	100	RIH with 8 1/2" Venturi on 5 7/8" HWDP from 62m to 210m.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	01:45	02:00	15	62	6,82	RIH with BHA	100	RIH with 1 std 5 7/8" HWDP engage TD. Surface test Venturi to 100 bar/1700lpm.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	01:30	01:45	15	25	6,1	MAKE UP BHA	100	P/U 8 1/8" Venturi Junk basket assy and 8 1/4" X-treme magnet assy	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	01:15	01:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to P/U BHA and RIH.	35/11-B-12 AH
28-mar-19	Deepsea Atlantic	00:00	01:15	75	0	41,2	WAIT ON INSTRUCTIONS	97	Wait on further instruction. Meanwhile change gear oil on Aux top drive. Maintenance on Main top drive.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	22:00	00:00	120	0	41,2	WAIT ON INSTRUCTIONS	97	Wait on further instruction. Meanwhile change gear oil on Aux top drive. Maintenance on Main top drive.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	21:15	22:00	45	0	6,73	POOH RISER	100	POOH with MUT and jetsub on 5 7/8" HWDP.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	21:00	21:15	15	410	12,13	SEAL ASSY / WEAR BUSHING	100	Engage top drive and start compensator, take up/down weight 89/90 ton. RIH and land 10 3/4" WB according to Aker procedure.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	20:15	21:00	45	410	6,82	RIH with BHA	100	RIH with MUT and jetsub on 5 7/8" HWDP to 410 m. Compensate trough BOP with jetsub. Continue RIH, L/D dobbel to RCWM.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	20:00	20:15	15	40	6,1	MAKE UP BHA	100	P/U and M/U MUT according to Aker, Aker to check WB prior to RIH.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	19:45	20:00	15	40	6,01	POOH CH	100	POOH with jetsub on 5 7/8" DP from 385 m to 40 m.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	18:30	19:45	75	385	12,21	CLEAN WH PRIOR TO RUN CASING/TUBING	100	Engage top drive and wash WH area with 2900 lpm/20 bar, line up kill and choke and pump down with 1000 lpm. Circulate 2X B/U and worke string up/down past WH area.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	17:45	18:30	45	365	6	RIH CH	100	RIH with jetsub on 5 7/8" DP, L/D dobbel on first stand.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	15:15	17:45	150	0	12,05	PULL CASING IN CASED HOLE	100	Release overshot from cut 5 1/2" tubing. B/O and L/D cut tubing using dog collar clamp and tugger. Continue POOH with 5 1/2" tubing and DHSVs with control line, no clamps on conections. Continue POOH with 5 1/2" tubing to ASV, to clamps on conection over ASV. Wear Bushing stuck in ASV.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	15:00	15:15	15	78	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob prior to POOH with 5 1/2" DHSVs with control lines.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	14:20	15:00	40	0	6,08	POOH CH reduced speed	100	Cont. POOH with fish on 5 7/8" DP above WH. With reduced speed. f/383m to surface.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	13:40	14:20	40	383	6,08	POOH CH reduced speed	100	Opserved restriction in WH area. Work string several times. Engage top drive and work string free with 500lpm.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	12:45	13:40	55	383	6,08	POOH CH reduced speed	100	POOH with fish on 5 7/8" DP. With reduced speed.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	12:30	12:45	15	551	12,05	PULL CASING IN CASED HOLE	100	Take up and down weights 80 ton/ 80 ton. Free torque 1kNm. 5 rpm. Latch fish 5 1/2" tubing. with 5 rpm. 3 kNm. Perform O.P test 15 ton. Confirmed free. New upweight 90 ton.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	12:15	12:30	15	551	6	RIH CH	100	RIH with 5 7/8" DP	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	12:10	12:15	5	400	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	12:00	12:10	10	360	6	RIH CH	100	RIH with 5 7/8" DP	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	11:45	12:00	15	190	6	RIH CH	100	RIH with 5 7/8" DP F/ 25m T/190	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	11:30	11:45	15	25	6,1	MAKE UP BHA	100	Transfer Overshot assy from derrick to Main well according to Baker plan.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	09:30	11:30	120	0	7,01	PLANNED MAINTENANCE	0	Maintenance on tourqwrench.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	09:15	09:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to RIH with overshot assy.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	09:00	09:15	15	0	25,22	DROP`s Inspection	100	DROPS check on top drive.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	08:45	09:00	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	08:30	08:45	15	0	6,33	CHANGE HANDLING EQUIPMENT	100	Change handling equipment from 4" to 5 7/8"	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	07:25	08:30	65	0	6,01	POOH CH	100	POOH on 4" wash pipe. Install LS on every connection. L/D in RCWM with mule shoe.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	07:15	07:25	10	67	6,33	CHANGE HANDLING EQUIPMENT	100	Change inserts in elevator to 4" and remove 5 7/8" slips.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	07:10	07:15	5	67	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to POOH 4" Wash pipe.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	06:15	07:10	55	67	6,01	POOH CH	100	P/U singel from RCWM and POOH with washpipe on 5 7/8" DP from 612 m to 67 m.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	05:00	06:15	75	612	6,33	CHANGE HANDLING EQUIPMENT	100	Rig down wireline equipment. Change from 50 fot to 9 fot bails.	35/11-B-12 AH

27-mar-19	Deepsea Atlantic	04:30	05:00	30	612	11,02	RIG UP OR DOWN FOR WIRELINE	97	Break out wire line toolstring and L/D to RCWM.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	04:00	04:30	30	612	11,03	WL OPERATIONS	97	Pull out of hole with wireline toolstring. Stop at 100m and deactivate heave compensator. Cont. out of hole to 50m, meanwhile perform prejobmeeting prior to break out toolstring.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	00:45	04:00	195	612	11,03	WL OPERATIONS	97	RIH with wireline toolstring to cut depth @ 629,5m and perform CCL correlation. Cut tubing @0310HRS acc. WECT and deepwell procedure. Release anchor and free cutters from tubing cut.	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	00:15	00:45	30	612	11,02	RIG UP OR DOWN FOR WIRELINE	97	M/U wireline toolstring for cut #2	35/11-B-12 AH
27-mar-19	Deepsea Atlantic	00:00	00:15	15	612	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejob meeting in Equinor office with involved personel. Discuss rig up for next run with company man.	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	23:30	00:00	30	500	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejob meeting in Equinor office with involved personel. Discuss rig up for next run with company man.	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	21:45	23:30	105	500	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rig up wireline toolstring for cut #2.	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	21:30	21:45	15	50	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to lay down tool string.	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	15:00	21:30	390	612	11,03	WL OPERATIONS	97	RIH on WL with cutting BHA. RIH to 1367m MD observed restriction. POOH to 666m MD cut tubing according to Deepwell. POOH to 100 m. Perform prejob meeting for POOH and change cutting blades.	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	14:15	15:00	45	616	11,02	RIG UP OR DOWN FOR WIRELINE	97	Functions test WL tools prior to RIH. Rig up WL tool according to Deep well instruction and RIH to 100m MD PU slips, start compensator and position washpipe at 612 m	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	14:00	14:15	15	616	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to rig up WL.	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	13:30	14:00	30	616	11,02	RIG UP OR DOWN FOR WIRELINE	97	Functions test WL tools.	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	12:00	13:30	90	616	6,33	CHANGE HANDLING EQUIPMENT	100	Install padeye sub in top drive, and install 50 ft bails. R/U for Wireline.	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	11:30	12:00	30	616	6,33	CHANGE HANDLING EQUIPMENT	100	Remove elevator and rig down 9 ft bails. Install padeye sub in top drive, and install 50 ft bails.	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	09:45	11:30	105	616	6	RIH CH	100	Up/down weight 79/79m. Perform line verification on surface line. Slowly enter top of tubing @ 551m. Cont RIH to 569m, pressure up down kill and string with closed annular and verify communication below flagger. Open annular an cont RIH to 604m. Pressure up down kill and string with closed annular and verify communication with entire well. Pressure up to 30 bar volume to pressure up: 715liter. Strip in to 610 m, 2 m below upper DHSV flapper. Bleed off pressure. Open annular and RIH to 615 m.	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	08:45	09:45	60	549	6,07	RIH CH Reduced speed	100	RIH with 4" wash pipe on 5 7/8" DP. L/D one sgl due to spaceout. Grease pipe	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	08:30	08:45	15	70	6,33	CHANGE HANDLING EQUIPMENT	100	Install 5 7/8" inserts in elevator, M/U XO 4" Box/Box and XO 4"-5 7/8".	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	08:00	08:30	30	70	6,1	MAKE UP BHA	100	Pick up 4" washpipe from catwalk, M/U handtight with chaintongs.	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	07:30	08:00	30	60	8,01	MECHANICAL REPAIRS	0	Function test shear ram.	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	07:15	07:30	15	60	6,1	MAKE UP BHA	100	Pick up 4" washpipe from catwalk, M/U handtight with chaintongs.	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	07:00	07:15	15	40	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to RIH with 4" wash pipe.	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	06:30	07:00	30	50	6,1	MAKE UP BHA	100	Pick up 4stk 4" washpipe from catwalk, M/U handtight with chaintongs.	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	06:20	06:30	10	0	6,1	MAKE UP BHA	100	M/U muleshoe to first 4" washpipe. with chaintong.	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	06:10	06:20	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to RIH with washpipe.	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	06:00	06:10	10	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor prior to rig up and RIH with washpipe.	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	05:45	06:00	15	0	6,11	LAY DOWN BHA	100	B/O and lay down 1 single 5 7/8"hwdp and BOP test tool. Rack back wash stand in derrick.	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	05:00	05:45	45	70	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	Pull out of hole with BOP test tool on 5 7/8"dp and 5 7/8"hwdp. from 430m to 70m	35/11-B-12 AH
26-mar-19	Deepsea Atlantic	00:00	05:00	300	430	15,11	PRESSURE TEST BOP	100	Pressuretest BOP and topdrive yellow pod. 20/300bar 5/10min.	35/11-B-12 AH
25-mar-19	Deepsea Atlantic	21:45	00:00	135	429	15,11	PRESSURE TEST BOP	100	Pressuretest BOP and topdrive. 20/300bar 5/10min.	35/11-B-12 AH
25-mar-19	Deepsea Atlantic	21:30	21:45	15	429	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP and land BOPITT in WH.	35/11-B-12 AH
25-mar-19	Deepsea Atlantic	21:15	21:30	15	403	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH with Baker Jetsub and BOPITT on 5 stand 5 7/8" HWDP and 5 stand 5 7/8" DP from 66 m to 403 m.	35/11-B-12 AH
25-mar-19	Deepsea Atlantic	20:45	21:15	30	66	6,1	MAKE UP BHA	100	RIH with Baker Jetsub stand. P/U and M/U BOPITT, Aker rep check and inspect. RIH with same. P/U singel 5 7/8" HWDP from RCWM.	35/11-B-12 AH
25-mar-19	Deepsea Atlantic	20:30	20:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to RIH with BOP test tool.	35/11-B-12 AH
25-mar-19	Deepsea Atlantic	19:00	20:30	90	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting with new crew prior to install disc in washpipe on TD. Install washpipe disc in TD.	35/11-B-12 AH
25-mar-19	Deepsea Atlantic	12:00	19:00	420	0	7,03	OPERATOR PLANNED MAINTENANCE	95	Cont. NOVOS installation software in cyberbase. Meanwhile perform general maintenance on drillfloor.	35/11-B-12 AH
25-mar-19	Deepsea Atlantic	07:00	12:00	300	0	7,03	OPERATOR PLANNED MAINTENANCE	95	Cont. NOVOS installation software in cyberbase. Meanwhile perform general maintenance on drillfloor.	35/11-B-12 AH
25-mar-19	Deepsea Atlantic	00:00	07:00	420	0	7,03	OPERATOR PLANNED MAINTENANCE	95	Cont. NOVOS installation software in cyberbase. Meanwhile perform general maintenance on drillfloor.	35/11-B-12 AH
24-mar-19	Deepsea Atlantic	19:00	00:00	300	0	7,03	OPERATOR PLANNED MAINTENANCE	95	Cont. NOVOS installation software in cyberbase. Meanwhile perform general maintenance on drillfloor.	35/11-B-12 AH
24-mar-19	Deepsea Atlantic	12:00	19:00	420	0	7,03	OPERATOR PLANNED MAINTENANCE	95	Cont. NOVOS installation software in cyberbase. Monitor well with closed BSR against closed choke with 10 bar. Meanwhile perform general maintenance on drillfloor.	35/11-B-12 AH
24-mar-19	Deepsea Atlantic	07:00	12:00	300	0	7,03	OPERATOR PLANNED MAINTENANCE	95	Cont. NOVOS installation software in cyberbase. Monitor well with closed BSR against closed choke with 10 bar. Meanwhile perform general maintenance on drillfloor.	35/11-B-12 AH
24-mar-19	Deepsea Atlantic	00:00	07:00	420	0	7,03	OPERATOR PLANNED MAINTENANCE	95	Cont. NOVOS installation software in cyberbase. Monitor well with closed BSR against closed choke with 10 bar. Meanwhile perform general maintenance on drillfloor.	35/11-B-12 AH
23-mar-19	Deepsea Atlantic	19:00	00:00	300	0	7,03	OPERATOR PLANNED MAINTENANCE	95	Cont. NOVOS installation software in cyberbase. Monitor well with closed BSR against closed choke with 10 bar. Meanwhile perform general maintenance on drillfloor.	35/11-B-12 AH
23-mar-19	Deepsea Atlantic	12:00	19:00	420	0	7,03	OPERATOR PLANNED MAINTENANCE	95	Cont. NOVOS installation software in cyberbase. Monitor well with closed BSR against closed choke with 10 bar. Meanwhile perform NDT on HR main and aux. Alignment control of aux wellcenter, aux HR. Topdrive main. Installation of protection grid in derrick for top drive service loop.	35/11-B-12 AH
23-mar-19	Deepsea Atlantic	07:00	12:00	300	0	7,03	OPERATOR PLANNED MAINTENANCE	95	Cont. NOVOS installation software in cyberbase. Monitor well with closed BSR against closed choke with 10 bar.	35/11-B-12 AH
23-mar-19	Deepsea Atlantic	00:00	07:00	420	0	7,03	OPERATOR PLANNED MAINTENANCE	95	NOVOS installation software in cyberbase. Change encoder on main HR. Monitor well with closed BSR against closed choke with 10 bar.	35/11-B-12 AH
22-mar-19	Deepsea Atlantic	19:00	00:00	300	0	7,03	OPERATOR PLANNED MAINTENANCE	95	NOVOS installation software in cyberbase. Monitor well with closed BSR against closed choke with 10 bar. Meanwhile complete trolly change and calibrate Main HR.	35/11-B-12 AH
22-mar-19	Deepsea Atlantic	12:00	19:00	420	0	7,03	OPERATOR PLANNED MAINTENANCE	95	NOVOS installation software in cyberbase. Monitor well with closed BSR against closed choke with 10 bar. Meanwhile complete trolly change and calibrate Main HR.	35/11-B-12 AH
22-mar-19	Deepsea Atlantic	07:00	12:00	300	0	7,03	OPERATOR PLANNED MAINTENANCE	95	NOVOS installation software in cyberbase. Remove safety-slings on MHR and dismantle HR-rails prior to remove old trolley. Monitor well with closed BSR against closed choke with 10 bar.	35/11-B-12 AH
22-mar-19	Deepsea Atlantic	00:00	07:00	420	0	7,03	OPERATOR PLANNED MAINTENANCE	95	Cont. Install NOVOS software in cyberbase. Meanwhile lift off lower trolly on main HR and install new trolly on same. Monitor well on against closed choke.	35/11-B-12 AH
21-mar-19	Deepsea Atlantic	19:00	00:00	300	0	7,03	OPERATOR PLANNED MAINTENANCE	95	Cont. Install NOVOS software in cyberbase. Meanwhile rig up for change trolly on Main HR. Monitor well on against closed choke.	35/11-B-12 AH
21-mar-19	Deepsea Atlantic	17:00	19:00	120	0	7,03	OPERATOR PLANNED MAINTENANCE	95	Install NOVOS software in cyberbase. Meanwhile rig up for change trolly on Main HR.	35/11-B-12 AH
21-mar-19	Deepsea Atlantic	16:45	17:00	15	0	6,11	LAY DOWN BHA	100	L/D Overshot assy in RCWM	35/11-B-12 AH
21-mar-19	Deepsea Atlantic	16:30	16:45	15	11	6,01	POOH CH	100	POOH with overshot on S 7/8" DP.	35/11-B-12 AH
21-mar-19	Deepsea Atlantic	12:00	16:30	270	546	11,02	RIG UP OR DOWN FOR WIRELINE	97	Cont. POOH with tool string and L/D in RCWM. Break Deepwell quick connection on WL and L/D toolstring. Rig down WL equipment according to Ottjel/Deepwell instruction. Transfer sgl with side entry sub to Aux and brake down. Remove elevator, L/D 50 ft Bails in RCWM and install 9 ft Bails with elevator.	35/11-B-12 AH
21-mar-19	Deepsea Atlantic	11:45	12:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to L/D toolstring and rig down WL equipment.	35/11-B-12 AH
21-mar-19	Deepsea Atlantic	11:30	11:45	15	0	11,03	WL OPERATIONS	97	Open LAP. Pulled up DP to 546m Deactivated DSC.	35/11-B-12 AH
21-mar-19	Deepsea Atlantic	08:30	11:30	180	0	11,03	WL OPERATIONS	97	RIH 100m with WL tool string. RIH with overshot on DP to land on top cut. Set 5 ton down weight. Cont. RIH with WL toolstring to confirm flapper position in upper DHSV. Pressured up to 20Bar. 456ltr pumped. Observed 20 bar on annuluas also. Bleeded off pressure on string and annulus, got 247ltr back. Attempt to latch key. NO GO. Pulled out to 100m.	35/11-B-12 AH
21-mar-19	Deepsea Atlantic	07:15	08:30	75	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rig up WL surface equipment according to Ottjell/Deepwell work instruction.	35/11-B-12 AH
21-mar-19	Deepsea Atlantic	07:00	07:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob prior to rig up and RIH with wireline.	35/11-B-12 AH
21-mar-19	Deepsea Atlantic	05:10	07:00	110	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	P/U and install wireline tool string according to Deep Well.	35/11-B-12 AH
21-mar-19	Deepsea Atlantic	04:50	05:10	20	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob prior to rig up and RIH with wireline.	35/11-B-12 AH
21-mar-19	Deepsea Atlantic	00:00	04:50	290	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Prepare next wireline tool and change head on wireline due to damage on wire.	35/11-B-12 AH
20-mar-19	Deepsea Atlantic	22:50	00:00	70	546	11,02	RIG UP OR DOWN FOR WIRELINE	97	Inspected toolstring and found small scratches on tool. Desided to run pulling tool for lower DHSV. Prepare toolstring on riser deck.	35/11-B-12 AH
20-mar-19	Deepsea Atlantic	20:15	22:50	155	546	11,02	RIG UP OR DOWN FOR WIRELINE	97	Broke off lubricator and L/D toolstring.	35/11-B-12 AH
20-mar-19	Deepsea Atlantic	20:00	20:15	15	546	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior L/D tool string.	35/11-B-12 AH
20-mar-19	Deepsea Atlantic	19:40	20:00	20	552	11,03	WL OPERATIONS	97	Stopped toolstring @ 100m. Bleeded off pressure on drillstring and annulus, opened LAP. Pulled up string to 546m Deactivated DSC.	35/11-B-12 AH
20-mar-19	Deepsea Atlantic	12:00	19:40	460	552	11,03	WL OPERATIONS	97	Pressured up well from cmt unit T/20bar. Observed same pressure on annulus side. Bled down pressure to cmt unit. Repressured up string/well T/20bar and positioned well key above DHSV latching profile. RIH and positionedwell key profile above latching profile of upper DHSV. Activated well key. After several attempts. NO GO. Decided to Pull out with toolstring and check tools.	35/11-B-12 AH
20-mar-19	Deepsea Atlantic	07:00	12:00	300	552	11,03	WL OPERATIONS	97	Pressured up well from cmt unit T/20bar. Observed same pressure on annulus side. Bled down pressure to cmt unit. Repressured up string/well T/20bar and positioned well key above DHSV latching profile. RIH and positionedwell key profile above latching profile of upper DHSV. Activated well key. NO GO.	35/11-B-12 AH
20-mar-19	Deepsea Atlantic	04:30	07:00	150	552	11,03	WL OPERATIONS	97	RIH with WL tool string and confirm flapper position in upper DHSV.	35/11-B-12 AH
20-mar-19	Deepsea Atlantic	04:15	04:30	15	552	11,02	RIG UP OR DOWN FOR WIRELINE	97	RIH with overshot on S 7/8" DP to land on top cut @552.4m. Keep 5ton downweight. Close annular.	35/11-B-12 AH
20-mar-19	Deepsea Atlantic	04:00	04:15	15	545	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmmeting prior to RIH with overshot.	35/11-B-12 AH
20-mar-19	Deepsea Atlantic	00:00	04:00	240	545	11,02	RIG UP OR DOWN FOR WIRELINE	97	Cont. to rig up for WL according to DeepWell. Install chainhoist, hang off line and upper sheave. Mount extension hoses for Elevator, Install elevator. Make up sgl to string. Build toolstring according to welltec. Engage cmt hose and perform line test from cmt unit. 100bar/5min	35/11-B-12 AH

									Rig up for WL according to DeepWell. Install chainhoist, hang off line and upper sheave. Mount extension hoses for Elevator, Install elevator. Make up sgl to string.	
19-mar-19	Deepsea Atlantic	22:30	00:00	90	545	11,02	RIG UP OR DOWN FOR WIRELINE	97	Build toolstring according to welltec.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	22:15	22:30	15	545	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to rig up for WL surface handling equipment.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	19:15	22:15	180	545	11,02	RIG UP OR DOWN FOR WIRELINE	97	P/U 2 stk S 7/8" DP PJ and M/U. Rig down 9 ft Bails from top drive. R/U 50 ft Bails, install swivel sub in TD.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	19:00	19:15	15	541	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to rig up for WL.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	18:10	19:00	50	541	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rigged up for WL.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	17:45	18:10	25	551	6,22	WASH DOWN	100	Connected TD to string and recorded Upweight 80ton/Down weight 79ton.Broke circulation and circulated with 500lpm-66 BAR and 5rpm. Verified top tubing with 5ton WOB @ 541m MD.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	17:15	17:45	30	541	6	RIH CH	100	RIH with OS on 5 7/8" DP T/540m MD. Compensated through BOP with OS.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	17:05	17:15	10	1	6,1	MAKE UP BHA	100	P/U overshot assy and M/U to 5 7/8" DP.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	16:50	17:05	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob prior to RIH with overshot.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	16:35	16:50	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor prior to rig up for wireline	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	16:20	16:35	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after POOH with clean out assy's.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	16:10	16:20	10	0	6,11	LAY DOWN BHA	100	L/D BHA to RCWM	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	16:00	16:10	10	30	6,83	POOH with BHA	100	POOH with clean out BHA 5 7/8" HWDP f/104m t/30m	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	15:25	16:00	35	104	6,01	POOH CH	100	POOH with clean out BHA 5 7/8" DP f/548m t/104m.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	15:15	15:25	10	548	6,41	FLOW CHECK	100	F/C well static.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	14:30	15:15	45	574	35,01	MILLING	100	M/U TD.Up wt 84 t,Dw 84t,5 rpm,1-2 klnm.Tag limit 6 kNm.500 l/m-29 bar.Enter top fish @551m and tag same with topdress mill.Polish acc. to Baker with 800 l/m,30 rpm,1-1,5 kNm.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	13:55	14:30	35	548	6	RIH CH	100	RIH with clean out BHA on 5 7/8" DP T/548m MD.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	13:45	13:55	10	104	6,82	RIH with BHA	100	RIH with 5 7/8" HWDP	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	13:30	13:45	15	30	6,33	CHANGE HANDLING EQUIPMENT	100	Changed handling equipment to 5 7/8".	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	13:00	13:30	30	30	6,1	MAKE UP BHA	100	P/U and M/U 4 3/4" Taper mill and 7 1/8" dress off mill assy.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	12:30	13:00	30	0	12,12	RIG DOWN CASING/LINER EQUIPMENT	100	R/U casing tong for 2 7/8" tubing.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	12:15	12:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior install casing tong and BHA for dress off 5 1/2" tubing.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	12:00	12:15	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear RF.Remove subs after BHA.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	11:45	12:00	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear RF	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	11:05	11:45	40	0	6,11	LAY DOWN BHA	100	R/B 5 7/8" HWDP, L/D Accelerator, R/B 6 1/2" DC stands and L/D Jar/OS to RCWM.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	10:50	11:05	15	145	6,01	POOH CH	100	POOH with Jar BHA on 5 7/8" DP T/145m. P/U dbl from RCWM.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	10:45	10:50	5	354	6,74	COMPENSATE THROUGH BOP	100	Compensated through BOP with BHA.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	10:40	10:45	5	392	6,31	L/D DRILLSTRING	100	L/D dbl to RCWM.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	10:30	10:40	10	411	6,01	POOH CH	100	POOH with overshot on 5 7/8" DP from 524m to 411m.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	09:30	10:30	60	524	25,22	DROP's inspection	100	Performed drops inspection on TD after Jaring.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	09:15	09:30	15	549	19,01	FISHING, OTHERS	100	Released over shot from 5 1/2" tubing and R/B stand.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	09:00	09:15	15	551	19,01	FISHING, OTHERS	100	Keep steady 174ton OP on fish.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	07:15	09:00	105	551	19,01	FISHING, OTHERS	100	Jared 11 x Up- and 17 x downwards according to BH instructions. Max 25ton down/65ton up. Confirmed tubing not free with 174ton OP.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	07:00	07:15	15	551	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting with crew before Jaring.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	06:30	07:00	30	551	19,01	FISHING, OTHERS	100	Engage DDM. Took weights 86T up/Down. Washed down with 500lpm/38ar - 5 Rpm/3kNm. Engaged overshot and took 10ton OP.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	06:00	06:30	30	530	6	RIH CH	100	RIH With 8 1/8 Overshot from 145m to 530m on 5 7/8" DP.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	05:10	06:00	50	145	6,1	MAKE UP BHA	100	Make up Overshot, JAR, 2 X DC std. and 2X ACC and 5 7/8" HWDP. From surface to 145m. Weight under JAR 1T, BHA weight 11T.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	04:55	05:10	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to P/U BHA	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	04:45	04:55	10	0	6,33	CHANGE HANDLING EQUIPMENT	100	Remove slips. Install 5" inserts in elevator	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	04:10	04:45	35	0	6,11	LAY DOWN BHA	100	L/D GTV plug in RCWM acording to Baker. Remove 2 stk XO, rack bak 8" DC in derrick.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	04:00	04:10	10	6	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	Cont POOH with GTV plug on 5 7/8" DP	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	03:50	04:00	10	81	6,11	LAY DOWN BHA	100	L/D MUT in RCWM according to Aker.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	03:00	03:50	50	96	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	POOH with MUT and GTV plug from 500m to 96m on 5 7/8" HWDP.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	02:45	03:00	15	468	12,13	SEAL ASSY / WEAR BUSHING	100	Run in from 423m to 468m (383m MUT). and Landed WB @383m. Sat down 10T. Sheared WB with 10T.	3S/11-B-12 AH
19-mar-19	Deepsea Atlantic	00:00	02:45	165	423	12,88	SET/RELASE MECH PLUGS	100	Line up to observe DP pressure against closed choke. Set down 8 ton, cont. lower string to latch on GTV. Verifyed by setting down 20 ton. Pump down string with cmt unit. Pump from 5-15bar=19liter. Not good communication through the plug. Got to up weight 89ton and set down 26 ton. Try againg to pump down string with cmt unit. Pump from 5-15bar =64 liter. Bleeded down pressure. Rotated 30 rotation to right. Continued rotate and pulled up 5m. Let the element relax for 30min, meanwhile flow checked well.	3S/11-B-12 AH
18-mar-19	Deepsea Atlantic	23:30	00:00	30	423	12,88	SET/RELASE MECH PLUGS	100	Up Weight:89ton. Down Weight:88ton. Torque 5 RPM:0,5kNm Pressure 3500 lpm:27bar RIH slowly and tag plug with 2ton @ 422,8m MD Pick up to 410m and start circulated with 3500lpm/278ar, Rotate with 5rpm/kNm. Washed down and decreased flow down in steps to 200lpm 2meter above GTV plug.	3S/11-B-12 AH
18-mar-19	Deepsea Atlantic	23:00	23:30	30	402	6,1	MAKE UP BHA	100	RIH with 5 7/8" HWDP F/63m T402m	3S/11-B-12 AH
18-mar-19	Deepsea Atlantic	22:45	23:00	15	63	6,1	MAKE UP BHA	100	P/U MUT with 10 ¾" WB (pre-installed on deck) according to Aker rep instruction.	3S/11-B-12 AH
18-mar-19	Deepsea Atlantic	22:35	22:45	10	42	6	RIH CH	100	RIH 2 std with 5 7/8" DP	3S/11-B-12 AH
18-mar-19	Deepsea Atlantic	22:30	22:35	5	10	15,07	FUNCTION TEST DIVERTER	100	Function test diverter. Ok	3S/11-B-12 AH
18-mar-19	Deepsea Atlantic	22:15	22:30	15	0	6,1	MAKE UP BHA	100	P/U Baker LT-CT retrieving head assembly from cat-walk into MAIN.	3S/11-B-12 AH
18-mar-19	Deepsea Atlantic	22:00	22:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to RIH with LT-CT R/T and MUT.	3S/11-B-12 AH
18-mar-19	Deepsea Atlantic	21:45	22:00	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and clear rigfloor.	3S/11-B-12 AH
18-mar-19	Deepsea Atlantic	21:15	21:45	30	0	1	RIG UP AND TEAR DOWN.	100	Install funnel, foamed same. Installed master bushing. Installed TW.	3S/11-B-12 AH
18-mar-19	Deepsea Atlantic	21:00	21:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to Install rotary and TW.	3S/11-B-12 AH
18-mar-19	Deepsea Atlantic	20:30	21:00	30	0	14,17	RIG DOWN BOP RUNNING EQUIPMENT	100	Lay out Diverter RT. Lifted out Spider.	3S/11-B-12 AH
18-mar-19	Deepsea Atlantic	18:10	20:30	140	0	14,23	RUN, LP-RISER / DIVERTER	100	P/U and landed diverter according to Odfjell procedure. Meanwhile: Pressure tested WH connector to 20/300Bar 5/10min. Volume pumped 116ltr-Bleeded back 116ltr. Started to displace Boost/kill/choke lines and riser to 1,12sg Brine.	3S/11-B-12 AH
18-mar-19	Deepsea Atlantic	17:45	18:10	25	0	14,17	RIG DOWN BOP RUNNING EQUIPMENT	100	Removed RRT and lift cylinder. Installed 6 5/8" inserts in elevator.	3S/11-B-12 AH
18-mar-19	Deepsea Atlantic	17:30	17:45	15	0	14,31	HANDLE LANDING JOINT	100	Pulled out with landing jnt. L/D same to catwalk.	3S/11-B-12 AH
18-mar-19	Deepsea Atlantic	17:15	17:30	15	0	14,3	LAND BOP	100	Landed BOP according to Odfjell procedure.	3S/11-B-12 AH
18-mar-19	Deepsea Atlantic	16:30	17:15	45	0	25,1	ROV OPERATIONS	100	Installed guidewire anchors 1,2,3 and 5. Checked bullseye. Tension up GW's to 2,5t.	3S/11-B-12 AH
18-mar-19	Deepsea Atlantic	14:00	16:30	150	0	24,98	MOVE RIG TO WELL/OFF WELL	100	Move rig to Well.	3S/11-B-12 AH
18-mar-19	Deepsea Atlantic	12:45	14:00	75	0	25,1	ROV OPERATIONS	100	ROV cleaned connector with BIFT tool and inspected same. Installed guide wires.	3S/11-B-12 AH
18-mar-19	Deepsea Atlantic	12:35	12:45	10	373	24,98	MOVE RIG TO WELL/OFF WELL	100	Move rig 15m off well.	3S/11-B-11 HTS
18-mar-19	Deepsea Atlantic	12:00	12:35	35	383	14,1	PREPARE & RIGGING IN MOONPOOL	100	Sat down 10ton on outer barrel and latched on. Confirmed latched on with 20ton OP.Lift BOP @12 35hrs.	3S/11-B-11 HTS
18-mar-19	Deepsea Atlantic	10:45	12:00	75	0	14,31	HANDLE LANDING JOINT	100	P/U landingjnt and connect same to innerbarrel. Meanehile deballast rig T/21m draft.	3S/11-B-11 HTS
18-mar-19	Deepsea Atlantic	10:00	10:45	45	0	14,18	RIG UP BOP RUNNING EQUIPMENT	100	L/D diverter to deck and lift landingjnt to RCW.Meanwhile install Riser RT.	3S/11-B-11 HTS
18-mar-19	Deepsea Atlantic	08:30	10:00	90	0	14,24	PULL ,LP-RISER /DIVERTER	100	Disconnect hyd hoses on diverter Pull diverter.Install protection on diverter seals.L/D diverter to catwalk.	3S/11-B-11 HTS
18-mar-19	Deepsea Atlantic	05:30	08:30	180	0	14,18	RIG UP BOP RUNNING EQUIPMENT	100	Install spider,remove skid frame with crane.Install Diverter RT.	3S/11-B-11 HTS
18-mar-19	Deepsea Atlantic	00:00	05:30	330	0	23	WOW DRILLING	75	WOW. Continue changed upper guidehead on HR AUX. Installed ladder for CCTV camera on FB-level. Pressuretesting choke manifold to 20/345bar for 5/10min . General maintenance and housekeeping in drilling areas. Performed harsh weather checklist in drilling areas. Worked with inspectionlist. @ 04:30 disconnected WLR system. Install padeyesub in elevator. Remove masterbushing bowls and funnel from rotary. Install spider according to Odfjell procedure.	3S/11-B-11 HTS
17-mar-19	Deepsea Atlantic	19:00	00:00	300	0	23	WOW DRILLING	75	WOW. Continue changed upper guidehead on HR AUX. Installed ladder for CCTV camera on FB-level. Pressuretesting choke manifold to 20/345bar for 5/10min . General maintenance and housekeeping in drilling areas. Performed harsh weather checklist in drilling areas. Worked with inspectionlist.	3S/11-B-11 HTS
17-mar-19	Deepsea Atlantic	12:00	19:00	420	0	23	WOW DRILLING	75	Wait on weather for further operation. Meanwhile changed upper guidehead on HR AUX. Secured loop hoses for TD aux. Lifted guide frame for ODT in AUX. Climbers installed same in derrick. General maintenance and housekeeping in drilling areas. Performed harsh weather checklist in drilling areas.	3S/11-B-11 HTS
17-mar-19	Deepsea Atlantic	06:30	12:00	330	0	23	WOW DRILLING	75	Wait on weather for further operation. Meanwhile installed grease hose on main TD. Changed oil on TD in main. Meanwhile mounted grease hose on dolly. Changed upper guidehead on HR AUX. Retrived rathole above drillfloor due to severe weather. General maintenance and housekeeping in drilling areas.	3S/11-B-11 HTS
17-mar-19	Deepsea Atlantic	05:30	06:30	60	0	25,22	DROP's inspection	100	Drops inspection on TD and HR Main.	3S/11-B-11 HTS
17-mar-19	Deepsea Atlantic	05:15	05:30	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drill floor.	3S/11-B-11 HTS
17-mar-19	Deepsea Atlantic	05:00	05:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after handling BHA.	3S/11-B-11 HTS
17-mar-19	Deepsea Atlantic	03:15	05:00	105	0	14,18	RIG UP BOP RUNNING EQUIPMENT	100	Removed tourqwrench. Installed riserliftcylinder and P/U riser running tool to drill floor.	3S/11-B-11 HTS
17-mar-19	Deepsea Atlantic	02:45	03:15	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	clean and clear drillfloor	3S/11-B-11 HTS
17-mar-19	Deepsea Atlantic	02:00	02:45	45	0	6,11	LAY DOWN BHA	100	R/B Magnet/Jar-assy, L/D Stringmill-assy and Junkmill-assy.cxd	3S/11-B-11 HTS
17-mar-19	Deepsea Atlantic	01:45	02:00	15	36	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting before handling BHA. Debrief after tripping.	3S/11-B-11 HTS
17-mar-19	Deepsea Atlantic	01:30	01:45	15	36	6,83	POOH with BHA	100	POOH on 5 7/8" HWDP from 450m to 36m	3S/11-B-11 HTS
17-mar-19	Deepsea Atlantic	01:00	01:30	30	450	6,01	POOH CH	100	POOH with tag BHA on 5 7/8" DP from 869m to 450m	3S/11-B-11 HTS
17-mar-19	Deepsea Atlantic	00:45	01:00	15	860	6,41	FLOW CHECK	100	Flowchecked before POOH. Well static.	3S/11-B-11 HTS
17-mar-19	Deepsea Atlantic	00:30	00:45	15	869	6,22	WASH DOWN	100	Engaged DDM filled pipe and Washed down with 300lpm/48ar-20Rpm/2kNm, Tagged TOC @ 869m with 10T.	3S/11-B-11 HTS
17-mar-19	Deepsea Atlantic	00:00	00:30	30	850	6	RIH CH	100	RIH with tag BHA on 5 7/8" DP from 640m to 850m	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	23:45	00:00	15	640	6	RIH CH	100	RIH with Tag cement BHA on 56 7/8" Dp From 450m to 640m	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	23:15	23:45	30	450	6,82	RIH with BHA	100	RIH with Tag BHA on 5 7/8" HWDP to 450m	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	23:10	23:15	5	50	15,04	KICK DRILL, CHOKE DRILL	100	Perform kick drill with crew.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	23:00	23:10	10	50	6,33	CHANGE HANDLING EQUIPMENT	100	Install auto 5 7/8" slips and pipe doper.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	22:15	23:00	45	50	6,1	MAKE UP BHA	100	Make Up BHA. According to Baker Plan. 8 ton below jar.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	22:00	22:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to RIH with Tag cmt BHA.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	20:45	22:00	75	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rig down pad eye sub and WL weel. B/O tool string and L/D in RCWM.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	20:30	20:45	15	50	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to rig down WL eqipment.	3S/11-B-11 HTS

16-mar-19	Deepsea Atlantic	16:00	20:30	270	860	11,03	WL OPERATIONS	97	RIH and log 20"csg and 16" liner for re-use.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	15:35	16:00	25	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rig up pad eye sub and WL wheel. M/U tool string, surface check logging BHA`s and RIH T/100m.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	15:25	15:35	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting before M/U and RIH with WL tool string.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	15:00	15:25	25	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drill floor.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	14:50	15:00	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after handling scrape BHA with involved personnel.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	14:30	14:50	20	0	6,11	LAY DOWN BHA	100	L/D assy #2, #1 and B/O XO.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	14:00	14:30	30	22	6,08	POOH CH reduced speed	100	POOH with scrape BHA on 5 7/8" DP T/22m. P/U sngl from CW.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	13:45	14:00	15	315	6,11	LAY DOWN BHA	100	L/D Jar, magnets and R/B assy #3 in derrick	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	13:35	13:45	10	350	6,3	P/U DRILLSTRING	100	L/D dbl, compensated through BOP with mill and P/U dbl.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	13:10	13:35	25	406	6,08	POOH CH reduced speed	100	POOH with scrape BHA on 5 7/8" DP T/406m. Observed 9 ton OP when passed NBP with 20" scape.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	12:00	13:10	70	868	6,07	RIH CH Reduced speed	100	RIH reduced speed on 5 7/8" DP with 16" mill and 20" scrape assy T/868m MD.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	11:10	12:00	50	671	6,07	RIH CH Reduced speed	100	RIH reduced speed on 5 7/8" DP with 16" mill and 20" scrape assy.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	10:35	11:10	35	350	6,1	MAKE UP BHA	100	P/U and RIH with 20" scrape assy and Jar/Magnet assy.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	10:25	10:35	10	315	6,07	RIH CH Reduced speed	100	RIH reduced speed on 5 7/8" DP with 16" mill.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	10:15	10:25	10	50	6,31	L/D DRILLSTRING	100	L/D down sgl to RCWM.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	09:55	10:15	20	22	6,1	MAKE UP BHA	100	Make up assy #1 XOS and assy #2	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	08:55	09:55	60	0	25,22	DROP`s Inspection	100	Dropcheck on TL5 Main and HR Main	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	08:25	08:55	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	clean and clear drillfloor	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	08:15	08:25	10	0	6,11	LAY DOWN BHA	100	Racked back wash STD in DRK	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	08:05	08:15	10	52	6,01	POOH CH	100	POOH with jetsub on 5 7/8" DP from 355 to 52	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	06:20	08:05	105	383	5,06	JET AROUND WELLHEAD	100	Record up/down weight 74/74 ton. Jet BOP using SW, 4000lpm 35bar 10RPM. Boost with 1000lpm down kill & choke. Spaced out string and closed/opened UPR, MPR and LPR. Continued	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	06:00	06:20	20	360	6,1	MAKE UP BHA	100	RIH with jet sub on 5 7/8" DP. P/U 1 sgl 5 7/8" DP from RCWM. Cont. RIH on 5 7/8" DP	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	05:30	06:00	30	0	6,11	LAY DOWN BHA	100	B/O and L/D XO, driftsub and XO. 4 1/8" Drift recovered from driftsub. L/D muleshoe.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	05:15	05:30	15	17	6,01	POOH CH	100	POOH with cement stinger from 390m to 17m on 5 7/8" DP.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	05:00	05:15	15	390	6,41	FLOW CHECK	100	Flowcheck well before pulling BHA through BOP. Well static.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	04:45	05:00	15	390	6,01	POOH CH	100	Dropped 4 1/8" drift on std # 22. POOH with cement stinger from 850m to 390m on 5 7/8" DP.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	04:30	04:45	15	870	6,41	FLOW CHECK	100	Flowchecked well static 10min.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	03:10	04:30	80	870	5,02	DISPLACE WELL/RISER	100	Displaced kill, choke and boost lines. Emptied TT. Lined up all pumps pumped 11m3 Hi-Vis soap pill. Displaced well to sw with 5000lpm/478ar-50Rpm/2kNm. 9000strokes. Total 90m3 slop returned to separate pit.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	01:50	03:10	80	870	5,01	CIRCULATE HOLE CLEAN	100	Install one wiper ball and circulated 1xB/U with 3500lpm/458ar- 50Rpm/2kNm. Total pumped 10 000 strokes.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	01:30	01:50	20	870	6,6	POOH CH	100	POOH with cement stinger from 1020m to 870m	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	00:00	01:30	90	1020	13,02	PUMP CMT	100	Cont. Pump 14,4 m³ 1,65 sg spacer with rig pump with 2500 lpm. Mixed and pumped 25,1m3 1,95sg. Displaced to rigfloor with 250l water. Disconnected cement hose. Displaced cement with 1,26 sg OBM. Total Pumped 429 strokes.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	23:50	00:00	10	1020	13,02	PUMP CMT	100	Pump 14,4 m³ 1,65 sg spacer with rig pump with 2500 lpm. Meanwhile pressuretest surface line to 100bar/5min.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	23:40	23:50	10	1020	13	RIG UP AND DOWN CEMENT EQUIPMENT	100	Install PS and run in to 1020, connect cmt hose to cmt std., and line up for surface test against closed Low torque valve. 100bar/5min	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	22:50	23:40	50	1000	5	CIRCULATE AND CONDITION MUD	100	Activate compensator and RIH carefully through OH and enter 14" csg at 980 m. Stage up circulation to 4000 lpm 57bar 50 rpm rotation on string and 2kNm.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	22:00	22:50	50	1000	6	RIH CH	100	RIH with 5" cement stinger on 5 7/8" DP from 18m to 1000m	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	21:15	22:00	45	18	6,1	MAKE UP BHA	100	P/U and M/U 5" Muleshoe, XO NC50-XT57, Drift sub and 1 sgl 5 7/8" DP. Maked up same.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	21:00	21:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after rig down casing tong. Prejobmeeting prior to RIH with kick off plug.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	19:30	21:00	90	0	12,12	RIG DOWN CASING/LINER EQUIPMENT	100	Install pad eye sub in elevator and connect to casing tong. Lay out casing tong with top drive down to riser catwalk skid.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	19:15	19:30	15	0	12,12	RIG DOWN CASING/LINER EQUIPMENT	100	Disconnect CRTI tool from TD and L/D in RCWM	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	19:00	19:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting/handover prior to rig down casing equipment.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	16:15	19:00	165	0	12,05	PULL CASING IN CASED HOLE	100	L/D csg stump to deck.POOH and R/B 14" CSG in derrick. L/D lower cut in RCWM.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	15:45	16:15	30	436	12,11	RIG UP CASING/LINER EQUIPMENT	100	P/U CRTI from RCWM and connect TD in same. Installed	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	15:30	15:45	15	436	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed debrief for pulling free casing. Performed prejob prior to rig up and POOH with 14" csg.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	15:15	15:30	15	436	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared rig floor prior to POOH with 14" csg.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	15:00	15:15	15	436	6,33	CHANGE HANDLING EQUIPMENT	100	Changed inserts in elevator to 5 7/8" prior to P/U CRTI.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	14:55	15:00	5	436	6,11	LAY DOWN BHA	100	Released spare from 14" csg and L/D to RCWM.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	13:30	13:35	5	436	12,11	RIG UP CASING/LINER EQUIPMENT	100	Installed 14" FMS in rotary.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	12:50	14:55	125	446	6,11	LAY DOWN BHA	100	Rack back 8" DC STD#1 in DRK and L/D Jar, Anchor assy to RCWM. Rack back 8" DC STD#2 and pulled fish through rotary.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	12:40	12:50	10	558	6,33	CHANGE HANDLING EQUIPMENT	100	Change handling equipment to 6 5/8".	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	12:30	12:40	10	558	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob prior L/D and R/B BHA.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	12:00	12:30	30	558	12,14	LAND/ PULL CSG ON LANDING STRING	100	Pull 14" casing on 5 7/8" DP landingstring f/740m t/550m.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	11:45	12:00	15	740	12,14	LAND/ PULL CSG ON LANDING STRING	100	Pull 14" casing on 5 7/8" DP landingstring f/770m t/740m.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	11:15	11:45	30	770	8,01	MECHANICAL REPAIRS	0	Replaced broken hydraulic coupling on TD.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	11:15	12:00	45	200	12,05	PULL CASING IN CASED HOLE	100		3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	10:30	11:15	45	770	6,74	COMPENSATE THROUGH BOP	100	Compensated jack assy and top fish through BOP.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	10:15	10:30	15	890	6,04	PUMP SLUG	100	Pumped 7m³ 1.58 SG slug	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	10:05	10:15	10	890	6,41	FLOW CHECK	100	Performed 10 min. flowcheck. Well stable.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	08:45	10:05	80	980	12,05	PULL CASING IN CASED HOLE	100	Sat down 5ton top fish, pulled up to neutral and reengaged spear acc. to BH instructions. Several attempts before solid engagement. Pulled in steps to max 240T hookload and fish released. Pulled 2 x stands wet to get top fish into shoe @ 926m. Connected TD and sheared ballseat on jack assy with 345 BAR.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	08:00	08:45	45	976	19,01	FISHING, OTHERS	100	RIH to 10m above fish. Recorded Up weight 98ton/Down weight 97ton. Engaged spear acc. to BH instructions. Worked csg free with 10ton OP. Pulled slowly up 4m and observed OP. Increaced OP in steps T/80ton. String free down words.	3S/11-B-11 HTS
16-mar-19	Deepsea Atlantic	07:10	08:00	50	980	6,07	RIH CH Reduced speed	100	RIH with Spear and jack assy on 5 7/8" DP from 117m to 544m. Compensated spear/anchor through BOP.	3S/11-B-11 HTS
15-mar-19	Deepsea Atlantic	07:00	07:10	10	117	6,33	CHANGE HANDLING EQUIPMENT	100	Change handling equipment to 5 7/8". Inserts in elevator and slips.	3S/11-B-11 HTS
15-mar-19	Deepsea Atlantic	04:15	07:00	165	117	6,1	MAKE UP BHA	100	P/U and M/U spear BHA according to Baker BHA drawings. Drop 1 1/8" ball, in ball drop sub. P/U 1 std 8" DC from derrick. P/U HPT Power section assy, HPT Anchor incl. sirc sub and 8" drilling Jar from RCWM 14T under Jar. P/U 4 joints 8" DC from RCWM	3S/11-B-11 HTS
15-mar-19	Deepsea Atlantic	04:00	04:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to RIH with Spear.	3S/11-B-11 HTS
15-mar-19	Deepsea Atlantic	03:45	04:00	15	0	25,22	DROP`s Inspection	100	Drops inspection on topdrive, and lubricated same.	3S/11-B-11 HTS
15-mar-19	Deepsea Atlantic	03:30	03:45	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared rigfloor.	3S/11-B-11 HTS
15-mar-19	Deepsea Atlantic	03:00	03:30	30	0	6,11	LAY DOWN BHA	100	L/D sgl DP and MUT, rack back jetting stand.	3S/11-B-11 HTS
15-mar-19	Deepsea Atlantic	02:00	03:00	60	67	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	POOH with MUT on 5 7/8" HWDP from 360m to 67m.	3S/11-B-11 HTS
15-mar-19	Deepsea Atlantic	01:45	02:00	15	422	6,23	ENGAGE TOP DRIVE AND LAND TOOLS	100	Recorded Up/Drweight - 89/88 ton. Activated compensator and land 18 3/4" NBP in WH @383m. Correlated for tide. Sat down 5 ton. Sheared out bore protector with 7 ton OP(96 ton HL). Pulled over BOP an deactivated compensator.	3S/11-B-11 HTS
15-mar-19	Deepsea Atlantic	01:30	01:45	15	383	5,06	JET AROUND WELLHEAD	100	Wash NBP setting aera with 3000lpm/56bar. Boost riser with 1000lpm while washing . Pumped total 1 x B/U.	3S/11-B-11 HTS
15-mar-19	Deepsea Atlantic	00:45	01:30	45	360	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH with MUT with 18 3/4" NBP on 5 7/8" HWDP from 63m to 360m.	3S/11-B-11 HTS
15-mar-19	Deepsea Atlantic	00:30	00:45	15	63	1	RIG UP AND TEAR DOWN.	100	Install pipedoper and Autoslips.	3S/11-B-11 HTS
15-mar-19	Deepsea Atlantic	00:15	00:30	15	63	6,82	RIH with BHA	100	RIH with wash assy std and MUT with 18 3/4" NBP	3S/11-B-11 HTS
15-mar-19	Deepsea Atlantic	00:00	00:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to P/U MUT with 18 3/4" NBP.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	23:30	00:00	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared rigfloor.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	23:00	23:30	30	0	12,12	RIG DOWN CASING/LINER EQUIPMENT	100	Remove FMS, install master bushing. Broke out CRTI L/D same.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	21:50	23:00	70	150	12,09	PULL CASING IN OPEN HOLE	100	Pull 4std off 14" casing and 1sgl with cut, rack back same in derrick. Problems lifting out stand from box with Hydra racker, due to threads hanging.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	21:40	21:50	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	prejob meeting prior to Pull out with casing and rack back same.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	21:20	21:40	20	0	12,11	RIG UP CASING/LINER EQUIPMENT	100	P/U CRTI tool from RCWM and install in top drive.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	20:20	21:20	60	0	6,11	LAY DOWN BHA	100	Release spear assy and reetrack top drive. Install straps and tugger to casing hanger and brake out same. L/D 14" casing hanger in RCWM with tagger. L/D spear assy in RCWM.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	19:30	20:20	50	0	12,11	RIG UP CASING/LINER EQUIPMENT	100	Rig up casing tong, remove masterbushing and install FMS slips in rotary.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	19:15	19:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to L/D spear in RCWM.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	19:00	19:15	15	0	6,15	CHECK OF HANDLING EQUIPMENT	100	Check of handling equipment.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	18:30	19:00	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	17:30	18:30	60	0	12,05	PULL CASING IN CASED HOLE	100	POOH with spear and casing joints.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	17:15	17:30	15	358	6,04	PUMP SLUG	100	Pumped $5m^3$ 1,6sg slug	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	17:05	17:15	10	358	6,41	FLOW CHECK	100	Flowcheck. Well static.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	16:40	17:05	25	390	12,05	PULL CASING IN CASED HOLE	100	Connected TD took up/down weight - 90ton. RIH compensated and landed with 5 ton. latched on 14" csg acc to Baker rep. Pulled free with 16ton above upweight. Pulled hanger above BOP.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	16:15	16:40	25	358	6,82	RIH with BHA	100	RIH with spare on 5 7/8" HWDP from 25m to 358m	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	15:50	16:15	25	25	6,1	MAKE UP BHA	100	P/U Spear/pack off, sgl 5 7/8" dp and Bumper sub from RCWM.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	15:35	15:50	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after handling BHA.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	15:20	15:35	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drill floor.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	14:45	15:20	35	0	6,11	LAY DOWN BHA	100	B/O and L/D MPT with seal assy, swab cup assy and R/B DP stand in co-operation with BH/Aker.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	13:50	14:45	55	50	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	POOH with seal assy/MPT and Swab cup assy on 5 7/8" HWDP from 435m to 50m.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	13:30	13:50	20	435	12,13	SEAL ASSY / WEAR BUSHING	100	Pulled Seal assy through BOP. Disconnected TD and installed wiper on string. P/U dbl from catwalk.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	13:15	13:30	15	435	6,41	FLOW CHECK	100	Flow checked well against closed choke. Opend AP and flow checked well against TT. Well statick.	3S/11-B-11 HTS
14-mar-19	Deepsea Atlantic	12:00	13:15	75	435	12,13	SEAL ASSY / WEAR BUSHING	100	Pressured up string and opend circ. sub with 195bar. Circulated through choke with 1,26sg OBM until mud i return 1 x B/U. Max 2% gas and 20ppm H2S in return mud observed. Total $22m^3$ contaminated in return.	3S/11-B-11 HTS

									Compensate Swab cup through BOP. L/D dbl due to space out. Test pack off according to BH instructions 17bar. Dropped BH 1 3/8" ball and RIH with MPT to above BOP. Closed lower AP, reduce closing pressure and open FS/choke. Opend lower AP and pressure up landing string /100bar. Land MPT in seal assy with 10ton WOB. Closed lower AP and reduced closing pressure. Pulled seal assy free with 58ton OP. Pulled seal assy 1m above and closed choke. No		
14-mar-19	Deepsea Atlantic	10:30	12:00	90	434	12,13	SEAL ASSY / WEAR BUSHING	100	pressure build up observed on choke.	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	10:00	10:30	30	358	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed well control forum with involved personell prior to release sealassy.	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	09:40	10:00	20	358	6	RIH CH	100	RIH with swab cup BHA on 5 7/8" HWDP T/358m.	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	09:15	09:40	25	61	6,1	MAKE UP BHA	100	P/U Swab cup from RCWM and installed 5 7/8" DP. P/U MPT and installed same to 5 7/8"DP.	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	09:05	09:15	10	0	6,11	LAY DOWN BHA	100	Break down 3 1/2" XOS and racked back 5 7/8" DP.	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	09:00	09:05	5	40	6,01	POOH CH	100	POOH	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	07:40	09:00	80	484	6	RIH CH	100	RIH to 484m with 2 std 5 7/8" DP 11 std 5 7/8" HWDP. Dropped 3 5/8" drift	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	07:30	07:40	10	40	6,1	MAKE UP BHA	100	Make up 3 1/2" XOS to 5 7/8" DP	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	07:15	07:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob before RIH with MPT and Swab cup	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	06:45	07:15	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	clean and clear drillfloor	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	06:30	06:45	15	0	6,11	LAY DOWN BHA	100	L/D MUT with WB to deck. Secured WB to MUT with sling when L/D. R/B Jet sub std.	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	05:30	06:30	60	67	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	POOH with MUT on 5 7/8" HWDP from 383m to 67m. Use of mudbucket.	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	05:15	05:30	15	383	6,22	WASH DOWN	100	Rack back 1 std and connect topdrive. Jet around WH are for 10 min. Parameters: 3000lpm/56bar	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	05:00	05:15	15	430	12,13	SEAL ASSY / WEAR BUSHING	100	Record up/down weight 91/90 ton. Land MUT in WH and set down 10 ton. Landing MUT @383m. Released WB with 26 ton OP	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	04:15	05:00	45	430	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH with MUT on 5 7/8" HWDP	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	04:00	04:15	15	38	6,1	MAKE UP BHA	100	RIH with jet sub on 5 7/8" DP STD P/U and M/U 14" MUT according to Aker	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	03:50	04:00	10	0	6,33	CHANGE HANDLING EQUIPMENT	100	Install bowls and slips in rotary.	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	03:35	03:50	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after POOH. Prejobmeeting prior to P/U MUT and RIH.	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	03:20	03:35	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor.	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	03:10	03:20	10	0	6,11	LAY DOWN BHA	100	Remove slips in rotary, Baker inspect BHA. L/D cut assy on RCWM.	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	02:10	03:10	60	10	6,01	POOH CH	100	POOH with cut assy on 5 7/8" DP	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	02:00	02:10	10	544	6,41	FLOW CHECK	100	Flow check well for 10 min. Well static.	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	00:10	02:00	110	544	5	CIRCULATE AND CONDITION MUD	100	Circulate 1 X BU	35/11-B-11 HTS
14-mar-19	Deepsea Atlantic	00:00	00:10	10	547	6,41	FLOW CHECK	100	Flow check well for 10 min. Well static.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	23:30	00:00	30	547	12,3	CUT CASING	100	Cutted 14" csg according to Baker procedure. Max rate 1000 RPM - 37 BAR - 90 RPM - 5-15 kNm TQ. Verified cut according to Baker.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	23:15	23:30	15	547	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to cut 14" casing	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	22:30	23:15	45	547	6,01	POOH CH	100	POOH with 14" cutter assy to shallow cut depth @ 544m. Pulled wet.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	22:20	22:30	10	983	6,41	FLOW CHECK	100	Flow checked well for 10 min. Well static.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	22:00	22:20	20	983	12,3	CUT CASING	100	Cutted 14" csg according to Baker procedure. Max rate 1000 RPM - 50 BAR - 90 RPM - 5-15 kNm TQ. Verified cut according to Baker.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	21:15	22:00	45	983	6,4	FILL PIPE	100	Connected TD and filled pipe. Slow filling due to cutters activate @ 370LPM. Positioned cutters @ cut depth 980m.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	20:25	21:15	50	959	6	RIH CH	100	RIH with 14" cutter assy from 10m to 959m.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	20:10	20:25	15	10	6,1	MAKE UP BHA	100	P/U 14 " cutter assy. Connected TD and performed surface test of cutters. Cutters activated @ 370 LPM - 4 BAR.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	19:55	20:10	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed debrief for EZSV plug run. Performed pre job meeting prior to P/U and RIH with 14" cutter BHA.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	19:45	19:55	10	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drillfloor.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	19:15	19:45	30	0	6,11	LAY DOWN BHA	100	B/O 5 7/8" STD and L/D R/T to RCWM.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	19:00	19:15	15	6	6,01	POOH CH	100	POOH with R/T from 363m to 6m.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	18:55	19:00	5	363	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with R/T.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	18:16	18:55	39	401	6,01	POOH CH	100	POOH with R/T from 1020m to 401m.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	18:15	18:16	1	1020	6,04	PUMP SLUG	100	Pumped 4 m3 1,72 SG slug and displaced same. Meanwhile installed wipers and plate in rotary.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	17:30	18:15	45	1025	12,88	SET/RELASE MECH PLUGS	100	Installed TD and filled string took up weight -96ton down weight -93ton. RIH to setting depth @ 1025m break circulation and circulated with 600lpm/7bar while carefully reciprocated the string 5m strokes across setting area for 5min. Picked up to setting depth stopped pumping and started rotating 36 CW and set plug. Released setting tool from plug with 27ton OP POOH 4m and rotated 22turn CW to protect R/T when tagging plug.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	16:45	17:30	45	1006	6,07	RIH CH Reduced speed	100	RIH with 14" EZSV plug from 363m to 1006m.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	16:40	16:45	5	401	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with 14" EZSV plug.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	16:15	16:40	25	363	6,07	RIH CH Reduced speed	100	RIH with 14" EZSV plug from 6m to 363m.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	15:40	16:15	35	6	6,1	MAKE UP BHA	100	P/U EZSV R/T maked up 5 7/8" DP STD and installed 14" EZSV plug.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	15:25	15:40	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor prepare for next operation RIH with 14" EZSV.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	15:10	15:25	15	0	6,11	LAY DOWN BHA	100	Break out jar and 12 1/4" rock bit. L/D same to RCWM.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	15:00	15:10	10	20	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Handover and prejob before L/D BHA to RCWM and P/U EZSV RT.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	14:50	15:00	10	20	6,11	LAY DOWN BHA	100	Break out jar and 12 1/4" rock bit. L/D same to RCWM.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	14:40	14:50	10	20	1	RIG UP AND TEAR DOWN.	100	Removed wipers and plate in rotary.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	14:35	14:40	5	111	6,11	LAY DOWN BHA	100	Pull out with 2 stand 5 7/8" HWDP.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	14:25	14:35	10	111	6,31	L/D DRILLSTRING	100	Removed EZSV plug on RCWM prior to lay down DP sng to RCWM.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	14:15	14:25	10	366	6,01	POOH CH	100	POOH from 366 m to 111m.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	14:10	14:15	5	404	6,74	COMPENSATE THROUGH BOP	100	Compensate throug BOP from 404 m to 366 m.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	14:05	14:10	5	556	6,01	POOH CH	100	POOH from 556 m to 404 m.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	13:50	14:05	15	556	6,41	FLOW CHECK	100	Flow checked well prior to pull BHA and hwdp through BOP.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	13:20	13:50	30	556	6,01	POOH CH	100	POOH from 1178 m to 556 m.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	12:55	13:20	25	1178	6,04	PUMP SLUG	100	Pumped 6 m3 1,56 SG slug and displaced same. Meanwhile installed wipers and plate in rotary.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	12:45	12:55	10	1178	6,41	FLOW CHECK	100	Flow check well due to POOH.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	12:00	12:45	45	1183	5,01	CIRCULATE HOLE CLEAN	100	Circulate B/U with 4000 lpm, 135 bar and 50 rpm.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	11:40	12:00	20	1183	2,3	DRILL CEMENT	100	Drilled cement from 1176 m from to 1182 m with 3000 lpm/85 bar and 80 rpm. Tag cement at 1183 m with 300 lpm and 10 ton.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	10:40	11:40	60	1176	6	RIH CH	100	Washed down from 1085 m to 1176 m with 300 lpm and 30 rpm. Indications of firm cement at 1176 m.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	08:45	10:40	115	1085	5	CIRCULATE AND CONDITION MUD	100	Circulated well with 4000 lpm/135 bar, 30 rpm/2 kNm and slow resiprocating of string.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	07:15	08:45	90	1085	5,02	DISPLACE WELL/RISER	100	Filled pipe and displaced well to 1,26 sg OBM. according to plan from mud ing with 4000 lpm/135 bar , 30 rpm and slow resiprocating of string. .	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	07:00	07:15	15	1085	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting for displacing well to 1,26 sg. OBM	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	04:00	07:00	180	1085	13,01	WAIT ON CEMENT	97	Waited for cement to set up. Meanwhile cut MW in surface system from 1.38 SG to 1.26 SG. Performed maintenace on drillfloor equipment.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	02:50	04:00	70	1085	6	RIH CH	100	RIH with 12 1/4" BHA on 5 7/8" DP F/101m T1047m MD. Compensated through BOP.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	02:45	02:50	5	101	6,82	RIH with BHA	100	RIH with 12 1/4" BHA on 5 7/8" HWDP T/101m. P/U sngl from CW.1047	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	02:40	02:45	5	17	6,1	MAKE UP BHA	100	P/U and M/U 12 1/4" BHA from RCWM.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	02:30	02:40	10	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drill floor.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	02:20	02:30	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after POOH with RT and prejob meeting before RIH with 12 1/4" Rock bit.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	01:45	02:20	35	0	6,11	LAY DOWN BHA	100	Removed drift from driftsub. Inspected,mounted protectors, flushed and L/D RT in co-operation with BH rep.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	01:30	01:45	15	3	6,01	POOH CH	100	POOH on 5 7/8"DP with 13 3/8"" EZSV RT from 363m to 3m.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	01:25	01:30	5	363	6,74	COMPENSATE THROUGH BOP	100	Compansate through BOP with	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	00:50	01:25	35	400	6,01	POOH CH	100	POOH on 5 7/8"DP with 14" EZSV RT from 1170m to 383m	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	00:20	00:50	30	1170	6,04	PUMP SLUG	100	Slugged pipe with 6m^3 1,72sg OBM and displaced down string with 1,38sg OBM. Dropped 4" drift top std # 31.	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	00:10	00:20	10	1170	6,41	FLOW CHECK	100	Flow checked well against TT. Well static	35/11-B-11 HTS
13-mar-19	Deepsea Atlantic	00:00	00:10	10	1170	5	CIRCULATE AND CONDITION MUD	100	POOH T/1175m MD without rotation/pumping. Installed one wiper ball in string and zero stroke counter. Pulled back 5m and circulated with 2500lpm/46bar and 50rpm/6kNm.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	22:45	00:00	75	1170	5,01	CIRCULATE HOLE CLEAN	100	POOH T/1175m MD without rotation/pumping. Installed one wiper ball in string and zero stroke counter. Pulled back 5m and circulated with 2500lpm/46bar and 50rpm/6kNm.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	22:25	22:45	20	1170	6,08	POOH CH reduced speed	100	POOH with 3 std 5 7/8" DP from 1330m to 1170m.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	22:20	22:25	5	1330	13	RIG UP AND DOWN CEMENT EQUIPMENT	100	R/B cmt stand in derrick.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	21:00	22:20	80	1330	13,02	PUMP CMT	100	Pump 12,4m^3 1,65sg spacer with Rig pumps 2500lpm/36bar and sat 50bar on KC TD. Opened low tourqe and pumped 14,5m^3 1,93sg cmt slurry. Closed low tourqe and disconnected hose from cmt std. Displaced cmt with 1,65sg spacer and 1,38sg OBM while rotating with 30rpm.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	20:45	21:00	15	1330	13	RIG UP AND DOWN CEMENT EQUIPMENT	100	Racked back 1 std and installed cmt std, washed down to 3m above EZSV. Connected cmt hose and lined up for surface test 300bar/5min.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	19:40	20:45	65	1330	5	CIRCULATE AND CONDITION MUD	100	Circulated 1 x B/U with 2500lpm/49bar Meanwhile prejob prior to set balanced cement plug.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	18:45	19:40	55	1330	12,88	SET/RELASE MECH PLUGS	100	Connected TD RIH to setting depth upweight-104ton downweight-97ton. Filled pipe and breaked circulation, washed setting area with 800lpm/11bar. Picked up to setting depth stopped pumping and started rotating 36 right hand rotations. picked up in steps of 9ton OP RT released @ 265ton OP. Run in and tagged plug with 5ton.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	17:25	18:45	80	1310	6,07	RIH CH Reduced speed	100	RIH from 402 m to 1310 m with reduced speed according to Halliburton recomandation. Training with new personel.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	17:15	17:25	10	402	6,74	COMPENSATE THROUGH BOP	100	Compensated through BOP with EZSV plug.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	16:45	17:15	30	364	6,07	RIH CH Reduced speed	100	RIH from 24 m to 402 m with reduced speed according to Halliburton recomandation. Training with new personel.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	16:35	16:45	10	24	6,31	L/D DRILLSTRING	100	Broke out and laid down double 5 7/8 DP for space out.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	15:00	16:35	95	5	6,1	MAKE UP BHA	100	Made up EZSV plug to RT. Made up XOS and driftsub.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	14:45	15:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting for building EZSV plug BHA.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	13:45	14:45	60	0	23,5	WOW CRANE	75	WOW due to strong wind and rough sea, much heave and roll/pitch . No crane operation. 13:45 hrs : Wind speed 77 knots, 15 m wave height and 4 m heave.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	13:15	13:45	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drillfloor.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	12:55	13:15	20	0	6,11	LAY DOWN BHA	100	L/D BHA on catwalk.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	12:35	12:55	20	20	1	RIG UP AND TEAR DOWN.	100	Take out rotary and remove wipers.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	12:00	12:35	35	20	6,11	LAY DOWN BHA	100	POOH with 5 7/8" HWDP from 369 m m to 20 m	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	11:30	12:00	30	369	6,01	POOH CH	100	POOH from 930 m to 369 m . Reduced speed while POOH due weather conditions.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	11:15	11:30	15	930	6,41	FLOW CHECK	100	Flow checked well prior to pull 5 7/8 hwdp and BHA through BOP.	35/11-B-11 HTS

12-mar-19	Deepsea Atlantic	10:10	11:15	65	930	6,01	POOH CH	100	POOH from 1959 m to 930 m. Reduced speed while POOH due weather conditions.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	09:40	10:10	30	1959	1	RIG UP AND TEAR DOWN.	100	Fished out loose wipers in rotary. Reinstalled wipers in rotary.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	09:15	09:40	25	1959	6,01	POOH CH	100	POOH from 2367 m to 1959 m. Much rig movement while tripping. Wipers fell off pipe in rotary while POOH.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	09:10	09:15	5	2367	6,3	P/U DRILLSTRING	100	Picked up and made up sgl from RCWM.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	09:00	10:00	60	800	6,41	FLOW CHECK	100	Flow checed well against TT before pull BHA through BOP.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	08:45	09:10	25	2367	6,04	PUMP SLUG	100	Pumped 6 m3 1,75 SG slug and displaced same. Meanwhile installed wipers and plate in rotary.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	08:30	08:45	15	2367	6,41	FLOW CHECK	100	Flow checked well	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	08:00	09:00	60	800	6,01	POOH CH	100	POOH with 12 1/4" BHA on 5 7/8" DP T/800m MD.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	07:40	08:30	50	2367	5,01	CIRCULATE HOLE CLEAN	100	Circulated B/U with 4000 lpm/210 bar and 50 rpm/8-10 kNm.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	07:00	07:40	40	2388	2,3	DRILL CEMENT	100	Drilled /washed from 2372 m to 2388 m with 3000 lpm/126 bar and 50 rpm/13 kNm , 2-5 ton WOB. Tagged cement with 10 ton and 500 lpm.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	07:00	08:00	60	9999	6,04	PUMP SLUG	100	Slugged pipe with 6m^3, 1,72sg OBM and displaced down string with 1,38sg OBM. Meanwhile installed wiper and plate in rotary.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	06:00	07:00	60	2365	13,01	WAIT ON CEMENT	97	Waited for cmt to set up. L/D sgl. Installed new stand.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	04:30	06:00	90	2363	5,01	CIRCULATE HOLE CLEAN	100	Circulated 1 B/U wih 3000lpm/130bar while resiprocated string.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	03:40	04:30	50	2372	2,3	DRILL CEMENT	100	Drilled soft cmt T/ 2372m MD with max 4ton WOB.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	02:45	03:40	55	2355	6,07	RIH CH Reduced speed	100	RIH with 12 1/4" BHA with reuced speed T/2300m MD. Connected TD and washed down with 500lpm/10bar and tagged TOC @ 2355m MD.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	01:00	02:45	105	2225	13,01	WAIT ON CEMENT	97	Waited for cement to set up. Meanwhile installed csg tong in AUX. Changed handling equipment in AUX to handle 10 3/4" csg. Installed grease manifold on Main dolly/TD. General maintenance on drilling equipment.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	00:45	01:00	15	2225	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed debrief after RIH with 12 1/4" Dress off BHA. Meanwhile connected TD and filled pipe.	35/11-B-11 HTS
12-mar-19	Deepsea Atlantic	00:00	00:45	45	2225	6,07	RIH CH Reduced speed	100	RIH with 12 1/4" Dress off BHA on 5 7/8" DP from 1590m to 2225m. Reduced speed due to cement.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	23:25	00:00	35	1590	6,07	RIH CH Reduced speed	100	RIH with 12 1/4" Dress off BHA on 5 7/8" DP from 1095m to 1590m. Reduced speed due to cement.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	23:15	23:25	10	1095	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed debrief of trip. Meanwhile emtied TT's and filled pipe.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	22:30	23:15	45	1095	6,07	RIH CH Reduced speed	100	RIH with 12 1/4" Dress off BHA on 5 7/8" DP from 407m to 1095m. Reduced speed due to cement.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	22:25	22:30	5	407	6,74	COMPENSATE THROUGH BOP	100	Compensate 12 1/4" rock bit through BOP.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	21:55	22:25	30	370	6,82	RIH with BHA	100	RIH on 5 7/8" HW with 12 1/4" Rock bit from 36m to 370m.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	21:45	21:55	10	36	6,31	L/D DRILLSTRING	100	L/D dbl 5 7/8" HWDP to RCWM	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	21:25	21:45	20	18	6,1	MAKE UP BHA	100	P/U 12 1/4" Bit assy#1 and Jar assy #2 from RCWM and make up same.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	21:10	21:25	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed debrief after POOH with EZSV RT. Performed prejob prior to P/U and RIH with 12 1/4" cmt dress off BHA.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	20:55	21:10	15	0	6,33	CHANGE HANDLING EQUIPMENT	100	Replaced rigtongs on drillfloor. Removed X/O from plug RT in AUX. Prepared next BHA items in catwalk.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	20:15	20:55	40	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drillfloor.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	19:40	20:15	35	0	6,11	LAY DOWN BHA	100	Removed wiper, plate and POOH with RT. Inspected plug RT and L/D.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	19:25	19:40	15	2	6,01	POOH CH	100	POOH with plug RT on 5 7/8" DP to surface. Compensated through BOP.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	19:10	19:25	15	470	6,41	FLOW CHECK	100	Flow checked well against TT before pull plug RT through BOP. Meanwhile performed prejob for L/D plug and RIH with 12 1/4" rock bit.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	17:30	19:10	100	470	6,01	POOH CH	100	POOH from 2300 m to 470 m. Dropped 3 5/8 drift on stand 61. Checked box on connections for cmt while tripping out.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	17:00	17:30	30	2300	6,04	PUMP SLUG	100	Pumped 6 m 3 1,72 SG slug and displaced same.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	16:45	17:00	15	2300	6,41	FLOW CHECK	100	Flow checked well.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	14:50	16:45	115	2317	5	CIRCULATE AND CONDITION MUD	100	Installed sponge ball in string. Connected TD, positioned string at 2317 m. Circulated 1 B/U with 2500 lpm/65 bar and 40 rpm/6 kNm. Moved string 5 m during circulation. Circulated until clean mud on shaker.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	14:45	14:50	5	2340	6,08	POOH CH reduced speed	100	POOH from 2407 m to 2340 m.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	14:40	14:45	5	2407	6,31	L/D DRILLSTRING	100	Broke out and laid down sgl 5 7/8 DP.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	14:35	14:40	5	2416	6,08	POOH CH reduced speed	100	POOH from 2500 m to 2416 m. Pulled dry pipe.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	14:20	14:35	15	2500	13	RIG UP AND DOWN CEMENT EQUIPMENT	100	Closed lo torque valve , disconnected cement hose. Racked back cement stand.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	13:10	14:20	70	2517	13,02	PUMP CMT	100	Pumped 12,4 m3 1,65 SG spacer. Pumped 17,7 m3 1,93 SG cement slurry. Displaced cement with 1,38 SG OBM using MPs , 1457 strokes.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	12:25	13:10	45	2517	13	RIG UP AND DOWN CEMENT EQUIPMENT	100	R/B one std and install cmt std. Connected cement hose to cement stand.Pressure test line up to 100 bar. Lined up for pump for pumping spacer.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	12:00	12:25	25	2518	5	CIRCULATE AND CONDITION MUD	100	Circulated 1 B/U with 2500 lpm/ 68 bar prior to cement job.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	11:00	12:00	60	2518	5	CIRCULATE AND CONDITION MUD	100	Circulated 1 B/U with 2500 lpm/ 68 bar prior to cement job. Performed prejobmeeting prior to cement job.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	10:05	11:00	55	2523	12,88	SET/RELASE MECH PLUGS	100	Made up TD, positioned string at setting depth 2523 m . Broke circulation to 700 lpm/15 bar, carefully resiprocated string at setting depth 2523 m bottom plug for 5 min. Sat EZSV plug according to halliburton procedure. Pulled free of plug with 35 ton OP. Tagged plug with 5 ton. Pulled up 5 m.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	10:00	10:05	5	2500	6,07	RIH CH Reduced speed	100	RIH from 2425 m to 2500 m on 5 7/8 hwdp.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	09:50	10:00	10	2425	6,3	P/U DRILLSTRING	100	Picked up and made up 1 sgl 5 7/8 DP for space out.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	09:15	09:50	35	2416	6,07	RIH CH Reduced speed	100	RIH from 2026 m to 2416 m.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	06:30	09:15	165	2026	41,2	WAIT ON INSTRUCTIONS	97	Waited for interpretation of CBL. Meanwhile general maintenance on drillfloor equipment. Pressure tested stand pipe to 20/345 bar for 5/10 min. Changed finger on fingerboard.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	03:15	06:30	195	2026	6,07	RIH CH Reduced speed	100	RIH wit 13 3/8" EZSV plug on 5 7/8" DP T/2125m MD. Compensated through BOP.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	03:00	03:15	15	0	6,33	CHANGE HANDLING EQUIPMENT	100	Installed auto doper. Removed shackle sub from elevator. Installed autoslips in rotary.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	02:45	03:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed debrief after WL and prejob meeting prior to RIH with EZSV plug.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	01:55	02:45	50	0	11,02	RIG UP OR DOWN FOR WIRELINE	100	Rig down and L/D WL toolstring to RCWM.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	01:40	01:55	15	100	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting before handle WL toolstring with involved personnel.	35/11-B-11 HTS
11-mar-19	Deepsea Atlantic	00:00	01:40	100	100	11,03	WL OPERATIONS	100	POOH with WL toolstring T/100m.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	17:15	00:00	405	9999	11,01	WIRE LINE LOGGING	97	RIH with logging string to 100 m, flagged cable and activated compensator. Continued RIH and performed wireline log 14"casing for formation bonding.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	15:30	17:15	105	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rigged up for wireline according to schlumberger and odfjell procedure. Picked up and made up toolstring.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	15:15	15:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting for wireline.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	15:00	15:15	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drillfloor.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	13:05	15:00	115	0	6,11	LAY DOWN BHA	100	POOH with BHA on 5 7/8 HWDP. Racked back magnet and jar. Broke out and laid down scrap/junk mill to RCWM. Baker inspected same.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	12:40	13:05	25	417	6,01	POOH CH	100	POOH from 970 m to 417 m.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	12:25	12:40	15	970	6,41	FLOW CHECK	100	Flow checked well prior to pull HWDP and BHA through BOP.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	12:00	12:25	25	970	6,01	POOH CH	100	POOH from 1450 m to 970 m.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	11:30	12:00	30	1450	6,01	POOH CH	100	POOH 2412 m to 1450 m. Had to calibrate HT several times during trip out .	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	11:00	11:30	30	2009	7,01	PLANNED MAINTENANCE	97	Calibrated Aux HR and HT. Meanwhile rearranged stands in derrick due to one std placed outside lower finger. R/B stand correctly and closed latch manually.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	10:35	11:00	25	2009	6,01	POOH CH	100	POOH from 2412 m to 2009 m.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	10:25	10:35	10	2412	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting for POOH. Meanwhile changed to aux HR.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	10:20	10:25	5	2412	6,01	POOH CH	100	POOH from 2560 m to 2412 m.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	09:55	10:20	25	2560	6,04	PUMP SLUG	100	Pumped 6,0 m3 with 1,70 sg slug.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	09:45	09:55	10	2560	6,41	FLOW CHECK	100	Flow checked well, monitoring on TT. Installed wiper and plate.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	07:20	09:45	145	2560	5,02	DISPLACE WELL/RISER	100	Lined up for displacement. Displaced well from 1,05 sg brine to 1,38 sg OBM with 4000 lpm according to plan. Tagged top cut at 2561 m with 5 ton while line up for displacing.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	06:10	07:20	70	2550	5	CIRCULATE AND CONDITION MUD	100	Connected TD. Filled pipe and broke circulation with 1,05 SG brine. Up/Down wt 158T/118T. Established circulation to max 3500 LPM - 85 BAR.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	05:00	06:10	70	2550	6,07	RIH CH Reduced speed	100	RIH with 14" clean out BHA on 5 7/8" DP from 926m to 2550m. Reduced speed due to possible oval casing below 16" csg shoe.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	04:00	05:00	60	926	6	RIH CH	100	RIH with 14" clean out BHA on 5 7/8" DP from 408m to 926m.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	03:00	04:00	60	408	6,82	RIH with BHA	100	RIH with 14" clean out BHA on 5 7/8" HWDP from 37m to 408m. Compensated through BOP.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	02:45	03:00	15	37	6,1	MAKE UP BHA	100	P/U and M/U Junk mill/scrape assy and magnet/jar assy. RIH with same.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	02:30	02:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed pre job meeting with involved personnel prior to M/U and RIH with 14" clean out BHA.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	02:15	02:30	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and cleared rigfloor.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	02:10	02:15	5	0	6,11	LAY DOWN BHA	100	L/D MUT to catwalk. R/B wash stand to derrick.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	01:45	02:10	25	52	6,83	POOH with BHA	100	POOH with wash stand and MUT on 5 1/2" HWDP from 430m to 52m. Reduced speed due to fullbore tool in riser.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	01:30	01:45	15	430	12,13	SEAL ASSY / WEAR BUSHING	100	Sat WB according to Aker procedure.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	01:15	01:30	15	383	5,06	JET AROUND WELLHEAD	100	Connected TD and washed WH area prior to install 13 3/8" WB with 2500 LPM - 21 BAR.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	00:40	01:15	35	383	6,82	RIH with BHA	100	RIH with wash stand and MUT from 52m to 383m. Reduced speed due to fullbore tool in riser.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	00:10	00:40	30	52	6,1	MAKE UP BHA	100	P/U and RIH with wash stand from derrick. P/U and RIH with MUT and preinnstalled 13 3/8" Wear Bushing.	35/11-B-11 HTS
10-mar-19	Deepsea Atlantic	00:00	00:10	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed prejob meeting prior to RIH with wash stand and MUT.	35/11-B-11 HTS
09-mar-19	Deepsea Atlantic	23:45	00:00	15	0	12,12	RIG DOWN CASING/LINER EQUIPMENT	100	Rigged down csg equipment.	35/11-B-11 HTS
09-mar-19	Deepsea Atlantic	23:30	23:45	15	0	25,22	DROP's Inspection	100	Performed DROPS on TD and handling equipment. Greased TD.	35/11-B-11 HTS
09-mar-19	Deepsea Atlantic	23:15	23:30	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor.	35/11-B-11 HTS
09-mar-19	Deepsea Atlantic	22:45	23:15	30	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after POOH with 10 3/4" csg	35/11-B-11 HTS
09-mar-19	Deepsea Atlantic	22:40	22:45	5	0	6,31	L/D DRILLSTRING	100	L/D 10 3/4" sgl with cut (6,5m)	35/11-B-11 HTS
09-mar-19	Deepsea Atlantic	19:15	22:40	205	6	12,05	PULL CASING IN CASED HOLE	100	POOH with 10 3/4" CSG from 2100 m to 6m and racked back stands in derrick.	35/11-B-11 HTS
09-mar-19	Deepsea Atlantic	19:00	19:15	15	2100	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed projob meeting with nightshift prior to POOH with 10 3/4" csg.	35/11-B-11 HTS
09-mar-19	Deepsea Atlantic	18:20	19:00	40	2100	12,05	PULL CASING IN CASED HOLE	100	POOH with 10 3/4" CSG from 2170 m to 2100m and racked back stands in derrick.	35/11-B-11 HTS
09-mar-19	Deepsea Atlantic	17:30	18:20	50	2170	12,05	PULL CASING IN CASED HOLE	100	Broke out and laid down 10 3/4 hanger with 2 pup joints , 1 sgl joint and 2 pup joints to RCWM. Not able to rack in derrick.	35/11-B-11 HTS
09-mar-19	Deepsea Atlantic	15:50	17:30	100	2190	12,11	RIG UP CASING/LINER EQUIPMENT	100	Changed to 10 3/4 handling equipment. Changed to BX-3 elevator. Installed 10 3/4" CSG FMS. Installed 10 3/4 CSG tong.	35/11-B-11 HTS
09-mar-19	Deepsea Atlantic	14:20	15:50	90	2190	12,05	PULL CASING IN CASED HOLE	100	POOH with 10 3/4 CSG on 5 7/8 HWDP. Broke out and laid down sgl 5 7/8 hwdp, bumpersub and 5 7/8 sgl. Installe 10 3/4" CSG slips on pup joint. Released spear according to baker instruction. Laid down spear to RCWM. Baker inspected same.	35/11-B-11 HTS
09-mar-19	Deepsea Atlantic	13:50	14:20	30	2550	6,04	PUMP SLUG	100	Pumped 10 m3 1,20 SG slug and displaced same.	35/11-B-11 HTS

09-mar-19	Deepsea Atlantic	12:00	13:50	110	2550	12,05	PULL CASING IN CASED HOLE	100	Established circulation to 1000 lpm/ 8 bar. Attempted to work hanger passed area i BOP/UAP with 5-20 ton OP, 255 ton-275 ton hookload. NO go. Stopped circulation. Continued to attempt work hanger passed BOP/UAP. Moved rig in different positions while working string up/down. Closed LAP for centralize CSG/hanger in BOP. No go. Continued work pipe up/down while rig being moved in different positions. After several attempts hanger got passed UAP. Continued pull out of BOP with 10 3/4 Hanger. Up weight 250 ton. No obstructions seen.	3S/11-B-11 HTS
09-mar-19	Deepsea Atlantic	10:45	12:00	75	2550	12,05	PULL CASING IN CASED HOLE	100	POOH compensated with hanger in BOP. Pulled up 11 m , took 15 -20 ton weight in top BOP/UPA , attempted to work hanger passed area. No go. Moved rig in several positions, while trying to work hanger passed area i BOP/UAP with 5-20 ton OP, 255 ton-275 ton hookload. NO go. Closed LAP and tried to centrilize Hanger/CSG. Continued to work hanger passed area. No go. Moved rig in several positions, while trying to work hanger passed area i BOP/UAP with 5-20 ton OP, 255 ton-275 ton hookload.	3S/11-B-11 HTS
09-mar-19	Deepsea Atlantic	10:35	10:45	10	2561	6,41	FLOW CHECK	100	Flowchecked well .	3S/11-B-11 HTS
09-mar-19	Deepsea Atlantic	10:10	10:35	25	390	12,05	PULL CASING IN CASED HOLE	100	Made up TD. Took up/down weight 93/92 ton. Compensated and landed outv stop sub with 5 ton. Engaged spear according to Baker instruction. Pulled free 10 3/4 CSG with 240 t hookload. Pulled up 2 m.	3S/11-B-11 HTS
09-mar-19	Deepsea Atlantic	09:40	10:10	30	367	6,82	RIH with BHA	100	RIH with spear assy on 5 7/8 HWDP to 367 m.	3S/11-B-11 HTS
09-mar-19	Deepsea Atlantic	08:45	09:40	55	34	6,1	MAKE UP BHA	100	Made up spear assy according to Baker, 1 sgl 5 7/8 DP ,bumper sub and 1 sgl 5 7/8 hwdp.	3S/11-B-11 HTS
09-mar-19	Deepsea Atlantic	07:45	08:45	60	0	12,11	RIG UP CASING/LINER EQUIPMENT	100	Rigged up for lifting 10 3/4" CSG tong with HR from RCWM to frame in main. Liftad CSG tong from RCWM to frame in main.	3S/11-B-11 HTS
09-mar-19	Deepsea Atlantic	07:30	07:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting for lifting 10 3/4 CSG tong from RCWM to main and p/u and rih with spear.	3S/11-B-11 HTS
09-mar-19	Deepsea Atlantic	07:15	07:30	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drillfloor.	3S/11-B-11 HTS
09-mar-19	Deepsea Atlantic	06:45	07:15	30	0	6,11	LAY DOWN BHA	100	POOH with MPT/Seal Assy and Pack Off Assy and L/D to catwalk.	3S/11-B-11 HTS
09-mar-19	Deepsea Atlantic	05:20	06:45	85	63	6,83	POOH with BHA	100	POOH with BHA on 5 7/8"HWDP from 360m to 63m.	3S/11-B-11 HTS
09-mar-19	Deepsea Atlantic	05:05	05:20	15	360	6,74	COMPENSATE THROUGH BOP	100	Compensate BHA through BOP from 434m to 360m	3S/11-B-11 HTS
09-mar-19	Deepsea Atlantic	04:55	05:05	10	434	6,41	FLOW CHECK	100	Flowcheck	3S/11-B-11 HTS
09-mar-19	Deepsea Atlantic	04:35	04:55	20	434	5	CIRCULATE AND CONDITION MUD	100	Cross circulated down kill/choke line with 1020lpm/15bar. Open annular.	3S/11-B-11 HTS
09-mar-19	Deepsea Atlantic	04:20	04:35	15	434	6,41	FLOW CHECK	100	Flowcheck against closed annular and choke.	3S/11-B-11 HTS
09-mar-19	Deepsea Atlantic	02:30	04:20	110	434	12,13	SEAL ASSY / WEAR BUSHING	100	Started to circulate with constant BHP with 370lpm/31bar STP/20bar kill pressure. Increased in steps to 1020lpm/37bar 23bar kill pressure. 0,1% gas and 6ppm H2S. Circulated until decrease trend in gas readings 34655TK	3S/11-B-11 HTS
09-mar-19	Deepsea Atlantic	01:15	02:30	75	436	12,13	SEAL ASSY / WEAR BUSHING	100	Tested pack off with rig pumps against TT. Dropped Bakers 1 3/8" ball. RIH to 2m above WH and closed lower annular and reduced pressure to 560PSI, 105ton upweight and 89ton downweight. Opened annular and landed MPT acc to Aker rep. Closed lower annular and reduced pressure to xxxPSI. Pressured up DP to 100bar. Tested annular with cmt unit 10bar to verify closed annular bleed off pressure and isolated cmt unit from choke manifold. Pulled/stripped seal assy 2m up with closed annular and observed 8bar on choke. Pressured up to 209bar to open circ sub acc to Baker. After bursting circ sub observed 34bar on STP and 8bar on choke manifold.	3S/11-B-11 HTS
09-mar-19	Deepsea Atlantic	00:00	01:15	75	375	6,82	RIH with BHA	100	RIH with BHA from surface to top BOP @370m on 5 7/8" HWDP.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	23:30	00:00	30	10	6,82	RIH with BHA	100	P/U and M/U BH swab cup BHA T/DP std. M/U Aker MPT to 5 7/8" HWDP.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	23:15	23:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after handling WB and prejob meeting before pull seal assy.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	22:50	23:15	25	0	6,11	LAY DOWN BHA	100	POOH with MUT. Secured WB to same and L/D to catwalk. R/B wash stand to derrick.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	22:05	22:50	45	58	6,83	POOH with BHA	100	POOH with MUT/10 3/4" WB on 5 7/8" HWDP T/58m.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	21:50	22:05	15	409	6,22	WASH DOWN	100	Connected TD/spaced out string and washed WH area with 2500lpm/18bar.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	21:35	21:50	15	430	12,13	SEAL ASSY / WEAR BUSHING	100	Recorded Up weight 91ton and Down weight 90ton. Activated compensator and landed MUT in WH with 10ton WOB. Released WB with 30ton OP. Pulled above BOP with MUT/WB.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	21:15	21:35	20	409	6,22	WASH DOWN	100	Connected TD to string and washed WH area with 2500lpm/20bar.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	20:40	21:15	35	372	6,82	RIH with BHA	100	L/D dbl and RIH with jet sub/MUT on 5 7/8" HWDP T/372m. M/U MUT to wash stand according to Aker rep. instructions. Removed innerbowls and RIH with Jet sub/MUT. Installed bowls and autoslips RKB.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	20:00	20:40	40	58	6,1	MAKE UP BHA	100		3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	19:30	20:00	30	0	25,22	DROP's Inspection	100	Drops inspection and secure hydraulic hose on TD.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	19:15	19:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting before retrieve 10 3/4" WB with involved personnel. Meanwhile pressuretest auto/manual KC on TD to 20/345bar for 5/10min from cmt unit.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	19:00	19:15	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drill floor.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	18:05	19:00	55	0	6,11	LAY DOWN BHA	100	POOH with 10 3/4 cut assy on 5 7/8 HWDP. Broke out and laid down 10 3/4 cut assy. Baker checked and cleaned assy prior to lay down same.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	17:40	18:05	25	161	6,01	POOH CH	100	POOH from 612 to 161 m. Compensated through BOP.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	17:30	17:40	10	612	6,41	FLOW CHECK	100	Flow checked well prior to pull BHA through BOP.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	17:25	17:30	5	612	15,04	KICK DRILL, CHOKE DRILL	100	Performed kick drill with crew	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	16:20	17:25	65	612	6,01	POOH CH	100	POOH from 1557 m to 612 m.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	16:00	16:20	20	1557	6,41	FLOW CHECK	100	Flow checked well. Ok	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	15:40	16:00	20	1557	6,41	FLOW CHECK	100	Closed well UAP. Still slowly increase in TT 1. Changed to TT 2. TT 2 stabil . No pressure observed on choke. Opened UAP.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	15:10	15:40	30	1557	6,41	FLOW CHECK	100	Flow checked well . Trip tank increased slowly 300 l/30 min.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	14:10	15:10	60	1557	6,01	POOH CH	100	POOH from 2547 m to 1557 m. Observed gain in trip diff during POOH.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	13:50	14:10	20	2561	6,04	PUMP SLUG	100	Pumped 7 m3 slug and displaced same.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	13:40	13:50	10	2561	6,41	FLOW CHECK	100	Flow checked well . Ok	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	13:30	13:40	10	2561	12,3	CUT CASING	100	Cut 10 3/4" CSG according to baker instruction at 2561 m. 100 rpm/15 kNm, 1400 lpm/44 bar after 2 min observed pressure drop to 27 bar. Verified cut according to Baker instruction.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	12:45	13:30	45	2561	5	CIRCULATE AND CONDITION MUD	100	Connected TD and positioned string at 2561 cutter depht. Filled pipe and broke circulation carefully. Took reference pressure 1400 lpm/44 bar.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	12:00	12:45	45	2548	6	RIH CH	100	RIH from 2000 m to 2548 m.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	10:45	12:00	75	2000	6	RIH CH	100	RIH from 1000 m to 2000 m.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	10:15	10:45	30	1000	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrif after RIH 1000 m , meanwhile filled pipe unconnected according to DOP. Up/down weight 102/95 ton.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	09:30	10:15	45	1000	6	RIH CH	100	RIH from 350 m to 1000 m on 5 7/8 DP.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	09:20	09:30	10	390	6,74	COMPENSATE THROUGH BOP	100	Compensated through BOP.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	09:10	09:20	10	350	6	RIH CH	100	RIH from 161 m to 350 m on 5 7/8 DP.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	08:55	09:10	15	161	6,1	MAKE UP BHA	100	RIH on 5 7/8 hwdp.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	08:40	08:55	15	13	6,33	CHANGE HANDLING EQUIPMENT	100	Changed to 5 7/8 auto slips and installed auto pipedoper.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	07:45	08:40	55	13	6,1	MAKE UP BHA	100	Picked up cutting assy. Made up TD and tested 10 3/4 cutter according to Baker.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	07:30	07:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting for RIH with 10 3/4" cutting assy.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	07:00	07:30	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drillfloor.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	06:50	07:00	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after handling plug assembly with crew.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	06:35	06:50	15	0	6,11	LAY DOWN BHA	100	Installed immobilizer clamp om plug assy and L/D same to RCWM according to BH instructions.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	05:30	06:35	65	4	6,83	POOH with BHA	100	RIH to 2m below plug setting depth to confirm plug released. POOH with GTV assembly. L/D and P/U sngl jnt and compensated throug BOP/WH area.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	05:00	05:30	30	517	6,41	FLOW CHECK	100	Waited for elements to relax. Meanwhile performed flow check.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	03:40	05:00	80	515	12,88	SET/RELASE MECH PLUGS	100	Connected TD and activated compensator. Recorded Up weight 97ton / Down weight 95ton / Torque 5 RPM 0,4KNm / Pressure 1100lpm Sbar. Tagged top GTV plug @ 517,5m MD with 2ton WOB. Marked pipe and P/U 12-14m and washed above plug. Stopped circulation and reduced rotation to 4-5rpm while lowering LT-CT down to setting depth. Lined up to observed DP pressure avainst closed choke. Set down 20ton to shear brass screws and shift open the unloader sleeve. Continued to lower string to latch on to GTV. Stopped rotation when latched onto plug and verified with 20ton WOB. Pulled 5T OP to verify connected to plug. Cementer pumped and confirmed communication through the plug with 50bar and 310liters pumped. Pulled 3T OP, applied 30rpm and released plug according to BH instructions.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	03:30	03:40	10	500	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	TBT before release and POOH with GTV plug.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	02:35	03:30	55	500	6,82	RIH with BHA	100	RIH wit LT-CT assembly on 5 7/8" HWDP T/500m MD. L/D and P/U sngl due to space out. Compensated LT-CT thrugh BOP.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	02:30	02:35	5	4	6,1	MAKE UP BHA	100	P/U BH LT-CT retrieving head assembly F/RCWM.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	02:20	02:30	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after handling 10 3/4" WB and prejob meeting before RIH with Plug RT with involved personnel.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	02:10	02:20	10	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drill floor.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	02:00	02:10	10	0	6,11	LAY DOWN BHA	100	L/D MUT to RCWM in co-operation with Aker.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	01:05	02:00	55	10	6,83	POOH with BHA	100	POOH with MUT on 5 7/8" HWDP. P/U sngl from RCWM and B/O PJ from std #3.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	00:55	01:05	10	407	12,13	SEAL ASSY / WEAR BUSHING	100	Increaced OP in steps and sheared out of WB acc. to Aker rep. with 10ton OP. Pulled MUT above BOP and deactivated compensator.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	00:15	00:55	40	430	15,01	FUNCTION TEST BOP	100	Function test BOP on yellow pod from toolpusher office and on blue pod from drillers cabin.	3S/11-B-11 HTS
08-mar-19	Deepsea Atlantic	00:00	00:15	15	430	12,13	SEAL ASSY / WEAR BUSHING	100	Set 10 3/4" WB acc to Aker rep. set down 10 ton prior to function test BOP	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	23:45	00:00	15	391	5,06	JET AROUND WELLHEAD	100	Washed WH area prior to land WB.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	22:30	23:45	75	373	6,82	RIH with BHA	100	RIH with 10 3/4" WB from 58m to 372m.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	22:15	22:30	15	58	6,1	MAKE UP BHA	100	P/U MUT with preinstalled 10 3/4" WB from RCWM.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	21:45	22:15	30	47	15,07	FUNCTION TEST DIVERTER	100	Function test diverter	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	21:15	21:45	30	47	6,1	MAKE UP BHA	100	RIH with wash std	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	21:00	21:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed prejob meeting prior to RIH and install 10 3/4" Wear Bushing.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	20:45	21:00	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared rigfloor.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	20:30	20:45	15	0	15,11	PRESSURE TEST BOP	100	Performed debrief post running BOP. Meanwhile subsea tested shear ram acoustic.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	19:00	20:30	90	0	14,17	RIG DOWN BOP RUNNING EQUIPMENT	100	Changed to 5 7/8 handling equipment. Installed padeye sub. Rigged up for lifting spider from rotary to RCWM. L/D Riser spider to RCWM. Installed funnel, solid ring, slit bushings and master bushing in rotary.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	17:00	19:00	120	0	14,23	RUN, LP-RISER / DIVERTER	100	Picked up and made up diverter. Installed diverter according to procedure. Released and laid down RT to RCWM. Meanwhile performed WH connector test to 20/300 bar 5/60 min.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	16:15	17:00	45	0	14,17	RIG DOWN BOP RUNNING EQUIPMENT	100	Rigged down RHRT and riser lift cylinder. Changed to 6 5/8 inserts in elevator.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	15:30	16:15	45	0	14,31	HANDLE LANDING JOINT	100	Broke out and laid down landing joint. Deballast rig to 25 m draft.	3S/11-B-11 HTS

07-mar-19	Deepsea Atlantic	15:00	15:30	30	0	14,16	TELESCOPIC JOINT	100	Stroked out innerbarrel on slip joint and landed in spider.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	14:00	15:00	60	383	14,3	LAND BOP	100	Established guide wires in cooperation with ROV. Landed BOP, sat down 30 ton. Locked wellhead connector and preformed 50 ton OP.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	13:30	14:00	30	373	6,7	MOVE RIG TO/OFF WELL	100	Moved rig to well B-11.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	12:00	13:30	90	373	14,3	LAND BOP	100	Prepared Sheaves , umbilicals and POD wires for landing of BOP.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	08:45	12:00	195	373	14,3	LAND BOP	100	Installed STR according to procedure. Prepared Sheaves , umbilicals and POD wires for landing of BOP. At 10.00 hrs deballast rig to 23 m draft. Pressure tested kill/choke line to 20/345 bar.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	08:30	08:45	15	373	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to work with STR.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	08:10	08:30	20	373	14,31	HANDLE LANDING JOINT	100	Picked up and made up handling joint.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	07:30	08:10	40	363	14	NIPPLE UP B.O.P	100	Picked up and made up Slip joint.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	06:15	07:30	75	345	14,11	PRESSURE TEST K&C LINES	100	Filled kil/choke/boost with SW. Pressure tested Kill/Choke from cementer 5/10min 20/345bar. Pressuretested Boostline 10min 100bar from Subsea.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	04:20	06:15	115	345	14,19	RUN BOP WITH SLICK RISER	100	RIS with BOP with riser from 220m to 345m	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	03:35	04:20	45	220	14,1	PREPARE & RIGGING IN MOONPOOL	100	Connected csg sling to riser for support for POD´s.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	03:10	03:35	25	220	14,19	RUN BOP WITH SLICK RISER	100	RIS with BOP with riser from 196m to 220m	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	02:10	03:10	60	196	14,11	PRESSURE TEST K&C LINES	100	Filled kil/choke/boost with SW. Pressured test Kill/Choke from cementer 5/10min 20/345bar. Pressuretested Boostline 10min 100bar from Subsea. Meanwhile skidded rig farther away in safe zone	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	01:20	02:10	50	196	14,19	RUN BOP WITH BUOYANG RISER	100	RIS with BOP with riser from 123m to 196m	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	00:15	01:20	65	123	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in AUX. RIS with BOP from 60m to 123m on 75ft riser.	3S/11-B-11 HTS
07-mar-19	Deepsea Atlantic	00:00	00:15	15	60	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in AUX. Rig down after pressuretest kill/choke/boost	3S/11-B-11 HTS
06-mar-19	Deepsea Atlantic	23:00	00:00	60	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in aux. Handover and prejob prior to start testing on kill/choke/boost	3S/11-B-11 HTS
06-mar-19	Deepsea Atlantic	21:45	23:00	75	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in aux. Secured BOP with OHG. Lifted BOP of BOP trolly. Removed BOP trolly. Lowered BOP into UHG. Rigged up sheaves,umbilicals and POD wires for RIS with BOP. RIS with BOP.	3S/11-B-11 HTS
06-mar-19	Deepsea Atlantic	12:00	21:45	585	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in aux. General maintenance on drilling equipment. Clean and clear in drilling areas. Remove remaining structure bumper bar for loop aux TD. Climbers install cabel way in derrick. Subsea prepare for running BOP. Changed standpipe valve 10. Meanwhile Aker informed stabil test, prepared guide wires and umbilical in moonpool for move main well to safe zone , released guide wires and pulled same to surface. Moved main well to safe zone.Performed prejobmeeting for run BOP.	3S/11-B-11 HTS
06-mar-19	Deepsea Atlantic	10:00	12:00	120	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in aux. General maintenance on drilling equipment.	3S/11-B-11 HTS
06-mar-19	Deepsea Atlantic	08:45	10:00	75	0	14,12	PREPARE TO RUN BOP	100	Skid BOP to wellcenter and connect double 75' flotation joints to BOP.	3S/11-B-11 HTS
06-mar-19	Deepsea Atlantic	07:00	08:45	105	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in aux. General maintenance on drilling equipment.	3S/11-B-11 HTS
06-mar-19	Deepsea Atlantic	00:00	07:00	420	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in aux. General maintenance on drilling equipment.	3S/11-B-11 HTS
05-mar-19	Deepsea Atlantic	20:00	00:00	240	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in Aux well. Completed maintenance on main HR. Picked up and made up 2 riser joints.	3S/11-B-11 HTS
05-mar-19	Deepsea Atlantic	12:00	20:00	480	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in aux well. General maintenace in drilling areas and on drilling equipment. Continue to pressuretest standpipe manifold to 20/345 bar for 5/10 min. Found leaking valve - start to change standpipe valve #10. Work with drilling inventory. Change encoder on main arm HR main. Drill inspections holes on torquewrench cylinder aux and main. Work in derrick main with relocate floodlights at level 3. Climbers start removing old structur for bumper for aux TD loop. Installed riserlift cylinder.	3S/11-B-12 AH
05-mar-19	Deepsea Atlantic	07:00	12:00	300	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in aux well. General maintenace in drilling areas and on drilling equipment. Continue to pressuretest standpipe manifold to 20/345 bar for 5/10 min. Work with drilling inventory. Change encoder on main arm HR main. Check leakage on aux TD. Grease bolts on riserjoints.	3S/11-B-12 AH
05-mar-19	Deepsea Atlantic	00:00	07:00	420	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in aux well. General maintenace in drilling areas and on drilling equipment. IFS on HRs. Changed rollers on upper arm main HR and on tail arm aux HR. IFS on brakes on main DWA, DWB and Aux DW. Pressure test on 5 7/8 KC and IBOP to 20/345 bar for 5/10 min.	3S/11-B-12 AH
04-mar-19	Deepsea Atlantic	12:00	00:00	720	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in aux. Performed general maintenace in drilling areas and on drilling equipments. Clean and clear. Performed pressure test of BOP to 20/345 bar on DP and 20/250 bar on 14" casing. Change pressuregauge for ARTE on standpipe manifold. NOV upload software for pressureswitch fault on DWA drive C. Build scaffold in derrick main level 3 and start work with installing floodlight. Check all riserjoints on deck. L/D casingtong for 5-1/2" tubing to RCWM. Held meeting in drillerscabin regarding SOOB, new red zone and pipehandling main on drillfloor. Checked guideheads and dragchains on HRs.	3S/11-B-12 AH
04-mar-19	Deepsea Atlantic	07:00	12:00	300	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in aux. Performed general maintenace in drilling areas and on drilling equipments. Check manriders on drillfloor. Clean and clear. Performed pressure test of BOP to 20/345 bar on DP and 20/250 bar on 14" casing.	3S/11-B-12 AH
04-mar-19	Deepsea Atlantic	00:00	07:00	420	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in aux. Performed general maintenace in drilling areas and on drilling equipments. Changed broke bolts on rails for HRs on drillfloor. Electronics work on main DWs. Performed pressure test of BOP to 300 bar. Performed DROPS and greased Aux TD/Dolloy.	3S/11-B-12 AH
03-mar-19	Deepsea Atlantic	12:00	00:00	720	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main rig operation in aux wellcenter. Meanwhile general maintenance on TD main and IFS routines. Prepare to pressuretest BOP in moonpool. Pressure tested BOP to 300 bar.	3S/11-B-12 AH
03-mar-19	Deepsea Atlantic	11:45	12:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief with crew after pulling BOP.	3S/11-B-12 AH
03-mar-19	Deepsea Atlantic	11:30	11:45	15	0	14,17	RIG DOWN BOP RUNNING EQUIPMENT	100	L/D double 75' slick riser joints. Land Riser RT in spider.	3S/11-B-12 AH
03-mar-19	Deepsea Atlantic	10:30	11:30	60	0	14,1	PREPARE & RIGGING IN MOONPOOL	100	Skid BOP to park position and secure same. Change well to B-12 after 11:30 hrs.	3S/11-B-11 HTS
03-mar-19	Deepsea Atlantic	09:15	10:30	75	20	14,1	PREPARE & RIGGING IN MOONPOOL	100	Prepare and rigging in moonpool prior to land BOP on carrier. Land on carrier and disconnect BOP from riser joint.	3S/11-B-11 HTS
03-mar-19	Deepsea Atlantic	08:45	09:15	30	20	14,2	PULL BOP WITH SLICK RISER	100	Prepare underhull guide and orient BOP prior to pull BOP through splash zone. Pull BOP through splash zone and secure BOP in subsea guide trolley guide.	3S/11-B-11 HTS
03-mar-19	Deepsea Atlantic	07:45	08:45	60	58	14,2	PULL BOP WITH SLICK RISER	100	Pull BOP on 75' slick joints from 127 m to 58 m. Trim rig and stop cranes to be able to pull through rotary due to rig movement.	3S/11-B-11 HTS
03-mar-19	Deepsea Atlantic	07:15	07:45	30	127	14,2	PULL BOP WITH BUOYANG RISER	100	Pull BOP on 75' buoyancy joints from 173 m to 127 m.	3S/11-B-11 HTS
03-mar-19	Deepsea Atlantic	07:00	07:15	15	173	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting with dayshift prior to continue to pull BOP.	3S/11-B-11 HTS
03-mar-19	Deepsea Atlantic	04:35	07:00	145	173	14,2	PULL BOP WITH BUOYANG RISER	100	Pulled BOP. Broke out and laid down 75 ft riser joints.	3S/11-B-11 HTS
03-mar-19	Deepsea Atlantic	04:15	04:35	20	333	14,29	RUN/PULL RISER PUP´S	100	Broke out and laid down 30 ft pup joint.	3S/11-B-11 HTS
03-mar-19	Deepsea Atlantic	03:30	04:15	45	342	14,16	TELESCOPIC JOINT	100	Pulled up Slip joint and landed in spider. Broke out and laid down Slip joint.	3S/11-B-11 HTS
03-mar-19	Deepsea Atlantic	03:00	03:30	30	360	14,31	HANDLE LANDING JOINT	100	Pulled up handlingjoint and landed in spider. Broke out and laid down handling joint to RCWM.	3S/11-B-11 HTS
03-mar-19	Deepsea Atlantic	00:00	03:00	180	372	14,1	PREPARE & RIGGING IN MOONPOOL	100	Splitted STR/gooseneck assy according to procedure.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	19:15	00:00	285	372	14,1	PREPARE & RIGGING IN MOONPOOL	100	Prepared umbilicals, reels,sheaves and wires for pulling BOP out of sea. Splitted STR according to procedure.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	19:00	19:15	15	372	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting with new crew prior to start with STR. At 19.15 hrs rig at 25 m draft.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	18:15	19:00	45	372	14,1	PREPARE & RIGGING IN MOONPOOL	100	Rig up and prepare equipment and PODs in moonpool for pulling BOP. Start to ballast rig to 25 m draft.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	18:00	18:15	15	372	6,7	MOVE RIG TO/OFF WELL	100	Move rig to safe zone. Meanwhile held prejobmeeting for preparing equipment in moonpool for pulling BOP.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	17:30	18:00	30	372	14,4	DISC. BOP	100	Orient and collaps innerbarrel with 10 ton down. Perform overpull test to 20 ton. Disconnect BOP at 17:53 hour. Pull above subsea structure prior to move rig.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	17:00	17:30	30	0	14,31	HANDLE LANDING JOINT	100	P/U landing joint from RCW and connected same to slipjoint prior to run in and collapse innerbarel. Bleed down N-line pressure to 237 ton.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	16:45	17:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting prior to P/U and M/U landingjoint while waiting on deck for preparing landingjoint.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	14:30	16:45	135	0	14,24	PULL ,LP-RISER /DIVERTER	100	Change handlingequipment to 6-5/8" inserts in elevator. P/U and install diverter RT. Disconnect hoses from diverter. Pull diverter to surface and L/D same to RCW.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	13:20	14:30	70	0	14,15	PREPARE TO PULL BOP	100	Rig up BOP handling equipment prior to pull BOP. Remove torquerwrench. Install shackle sub. Remove masterbushing, split bushing and solid adapter ring. Install riserspider in RKB. Meanwhile displaced riser to seawather.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	13:00	13:20	20	0	14,15	PREPARE TO PULL BOP	100	Perform brake test on DW main prior to pull BOP. Test ok - 907 ton available.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	12:45	13:00	15	0	25,22	DROP´s Inspection	100	Preform DROPS check top drive.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	12:30	12:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting with crew prior to rig up for pulling BOP. Start to deballast rig to 23 m draft.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	12:15	12:30	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	12:00	12:15	15	0	6,11	LAY DOWN BHA	100	L/D GTV plug assembly.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	11:30	12:00	30	0	6,11	LAY DOWN BHA	100	POOH with GTV RT on 5-7/8" HWDP from 213 m to 0 m. L/ D GTV running tool to RCW.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	09:45	11:30	105	213	13,2	PRESSURE TEST OF CASING	100	Closed BSR and pressure test 10 3/4" GTV plug 5/10 min 20/ 300bar ok. Bleed of all pressure, ventilated choke and open BSR.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	09:15	09:45	30	213	6,11	LAY DOWN BHA	100	POOH with GTV RT on 5-7/8" HWDP from 520 m to 213 m. Compensate through BOP. Meanwhile preform surface linetest prior to test 10-3/4" GTV plug.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	08:55	09:15	20	520	12,88	SET/RELASE MECH PLUGS	100	Connect TD. Record upweight 99 ton, downweight 98 ton. Position string av 519 m bottom plug. Set plug according to Baker instructions. Move string downwards and rotate with 12 turns before setting. Bottom plug at 520,30 m. Perfrom overpull and set down weight in steps to 30 ton. Release from plug and pull above plug. Record new upweight 96 ton, downweight 96 ton.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	07:45	08:55	70	501	6,1	MAKE UP BHA	100	RIH with 10-3/4" GTV plug on 5-7/8" HWDP from 20 m to 501 m and space out with 5-7/8" DP in BOP. Compensated trough BOP. Runningspeed 0,6 m/sec in casing.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	07:30	07:45	15	20	6,1	MAKE UP BHA	100	P/U 10 3/4" GTV plug form RCW. Inspect and M/ U same to 1 STD 5-7/8" HWDP.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	07:15	07:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held debrief for L/D EZSV RT. Held prejobmeeting prior to P/U 10-3/4" GTV plug.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	06:30	07:15	45	0	6,11	LAY DOWN BHA	100	POOH from 207 m on 5-7/8" HWDP with EZSV RT. Broke out XOS and laid down RT to RCWM.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	06:20	06:30	10	207	6,3	P/U DRILLSTRING	100	P/U and made up double 5 7/8 hwdp from RCWM.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	06:05	06:20	15	207	6,01	POOH CH	100	POOH from 416 m to 207 m. Compensated while pulling through BOP.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	05:55	06:05	10	416	6,3	P/U DRILLSTRING	100	Picked up and made up double 5 7/8 DP from RCWM on stand 6.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	02:45	05:55	190	416	6,01	POOH CH	100	POOH with RT from 2583 m to 416 m. Cleaned and doped pipe while POOH. Training with new personel while tripping.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	02:15	02:45	30	2583	6,04	PUMP SLUG	100	Pumped 7 m3 with 1,20 SG slug and displaced same.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	00:45	02:15	90	2590	12,88	SET/RELASE MECH PLUGS	100	Connected TD, filled string and took up/down weight 151/114 ton. Meanwhile discussed setting procedure with Halliburton onshore support.Positioned string at setting depth 2590 m, broke circulation to 800 lpm and carefully reciprocated string across setting area for 5 min. Sat 10 3/4" EZSV plug according to Halliburton procedure at 2590,5 m bottom plug. Verified RT free and pulled up 3 m and rotated string 30 rpm/1 min according to Halliburton instructions. Tagged plug with 25 ton.	3S/11-B-11 HTS
02-mar-19	Deepsea Atlantic	00:00	00:45	45	2575	6,07	RIH CH Reduced speed	100	RIH with EZSV plug from 2195 m to 2575 m.	3S/11-B-11 HTS

01-mar-19	Deepsea Atlantic	20:50	00:00	190	2195	6,07	RIH CH Reduciid speed	100	RIH with EZSV plug from 416 m to 2195 m.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	20:40	20:50	10	416	6,31	L/D DRILLSTRING	100	L/D double on stand 6.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	20:10	20:40	30	416	6,07	RIH CH Reduced speed	100	RIH on 5 7/8 DP from 207 m to 416 m. Compensated through BOP.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	20:00	20:10	10	207	6,31	L/D DRILLSTRING	100	L/D double on last stand 5 7/8 hwdp to RCWM.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	19:15	20:00	45	207	6,1	MAKE UP BHA	100	RIH with 10 3/4 EZSV plug on 5 7/8 HWDP to 207 m.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	19:00	19:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to RIH with 10 3/4 EZSV plug.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	18:45	19:00	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	18:15	18:45	30	0	6,11	LAY DOWN BHA	100	B/O and L/D 9-3/8" Junk mill BHA to RCWM as three assys.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	17:30	18:15	45	28	6,11	LAY DOWN BHA	100	POOH in CH with 9-3/8" Junk mill on 5-7/8" HWDP from 395 m to 28 m. Compensate through BOP. Meanwhile held prejobmeeting for L/D 9-3/8" Junk mill BHA.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	17:10	17:30	20	395	6,01	POOH CH	100	POOH in CH with 9-3/8" Junk mill on 5-7/8" DP from 780 m to 395 m on elevator. Train new personel during trip.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	16:50	17:10	20	780	6,41	FLOW CHECK	100	Flow check well prior to pull BHA through BOP. Flow check ok. well static.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	15:45	16:50	65	780	6,01	POOH CH	100	POOH in CH with 9-3/8" Junk mill on 5-7/8" DP from 1947 m to 780 m on elevator. Train new personel during trip. Use mudbucket from 1947 m to 1750 m.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	14:45	15:45	60	1947	6,01	POOH CH	100	POOH in CH with 9-3/8" Junk mill on 5-7/8" DP from 2580 m to 1947 m on elevator. Train new personel during trip. Pull wet from 1947 m.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	14:30	14:45	15	2580	6,04	PUMP SLUG	100	Stop boosting. Pump 4.5 m3 1,20 sg slug and displace surface lines. No return - pipe empty (last filled at 2000 m and float in string). Start boosting.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	14:15	14:30	15	2594	5,01	CIRCULATE HOLE CLEAN	100	Connect TD. Activate AHC. Scrape setting area for 10-3/4" EZSV plug three times from 2594 m to 2580 m with 60 rpm - 11 kNm. No flow.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	13:55	14:15	20	2594	6,08	POOH CH reduced speed	100	POOH in CH with 9-3/8" Junk mill on 5-7/8" DP from 2895 m to 2594 on elevator.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	13:30	13:55	25	2895	6,41	FLOW CHECK	100	Flowcheck well on active system for 10 min before POOH. Well static.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	13:00	13:30	30	2895	6,07	RIH CH Reduced speed	100	RIH in CH with 9-3/8" Junk mill from 2556 m to 2895 on elevator. No obstructions observed in interval.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	12:00	13:00	60	2556	6,22	WASH DOWN	100	Connect TD on every stand. Work string down with 20 rpm - 8 kNm from 2366 m to 2556 m. No obstructions observed in interval.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	10:50	12:00	70	2366	6,22	WASH DOWN	100	Activate AHC. Pull up 10 m to verify free up. Connect string to TD. Set 20 bar on closed IBOP and rotate with 20 rpm - 8 kNm. Rotation weight 127 ton. Work string past obstructions at 2275 m, 2300 m and 2315 m. Connect TD on every stand.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	10:30	10:50	20	2275	6,07	RIH CH Reduced speed	100	RIH CH with reduced speed with 9-3/8" Junk mill on 5-7/8" DP from 2040 to 2275. Set down weight 10 ton.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	10:00	10:30	30	2040	6,4	FILL PIPE	100	Connect TD. Fill pipe with 1500 lpm. Break circulation with 516 lpm - 3 bar. Record upweight 134 ton, downweight 109 ton.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	07:45	10:00	135	2040	6,07	RIH CH Reduced speed	100	RIH CH with reduced speed with 9-3/8" Junk mill on 5-7/8" DP from 396 m to 2040 m. Train new personel during trip.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	07:10	07:45	35	396	6,11	LAY DOWN BHA	100	P/U double 5-7/8" DP from riser. Inspect and L/D BOP wash tool and magnet assy to RCWM.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	06:45	07:10	25	410	6,01	POOH CH	100	POOH with junk mill from 781 m to 410m until BOP wash tool on drillfloor.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	05:20	06:45	85	781	5,06	JET AROUND WELLHEAD	100	Connected TD to string. Took readings up/down weight 106/103 ton and 10 rpm/ 1 kNm. Placed jetting tool in lower part of BOP according to Baker. Boosted kill/chokeline with 3000 lpm/10 bar while reciprocated string slowly up/down ,3 passes in BOP and rotated with 10 rpm/1 kNm. Stopped puming and rotating. Established circulation through string to 3000 lpm/20 bar and reciprocated with 10 rpm up and down in BOP 2 passes. Boosted riser with 1000 lpm. Pumped total 150 m3 , observed little junk on shaker.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	04:45	05:20	35	770	6,07	RIH CH Reduced speed	100	RIH with junk mill assy from 428 m to 770 m on 5 7/8 DP. RIH carefully to BOP wash tool above BOP.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	04:30	04:45	15	428	6,31	L/D DRILLSTRING	100	Broke out and laid down double on first stand 5 7/8 DP.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	02:55	04:30	95	410	6,1	MAKE UP BHA	100	Picked up and made up Junk mill assy with jar according to plan. Continued RIH on 5 7/8 HWDP from 28 m to 398 m. Picked up and made up BOP wash assy.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	02:45	02:55	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting for RIH with Junk mill assy and BOP clean out assy.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	02:15	02:45	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drillfloor. Meanwhile greased Travelling block and dolly.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	02:00	02:15	15	0	31,21	RIG DOWN TUBING	100	Rigged down 5 1/2" tubing equipment.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	01:00	02:00	60	0	31,1	PULL TUBING	100	POOH with remaining cables/control lines approx 100 m.	3S/11-B-11 HTS
01-mar-19	Deepsea Atlantic	00:00	01:00	60	0	31,1	PULL TUBING	100	Continue to POOH with 5-1/2" tubing with 2 control lines from 26 m to 0 m. No cable clamps on stands while POOH. Boost riser on active system as triptank. Cut cable above and below DHG. Secured cable prior to Break out and laid down 1 joint 5 1/2". Broke out and laid down 5 1/2" joint and DHG with cut to RCWM.	3S/11-B-11 HTS
28-feb-19	Deepsea Atlantic	20:45	00:00	195	26	31,1	PULL TUBING	100	Continue to POOH with 5-1/2" tubing with 2 control lines from 205 m to 26m. No cable clamps on stands while POOH. Boost riser on active system as triptank.	3S/11-B-11 HTS
28-feb-19	Deepsea Atlantic	20:25	20:45	20	205	6,33	CHANGE HANDLING EQUIPMENT	100	Not able to sit slips. Changed to new 5 1/2" tubing slips.	3S/11-B-11 HTS
28-feb-19	Deepsea Atlantic	19:15	20:25	70	205	31,1	PULL TUBING	100	Continue to POOH with 5-1/2" tubing with 2 control lines from 274 m to 205 m. No cable clamps on stands while POOH. Boost riser on active system as triptank.	3S/11-B-11 HTS
28-feb-19	Deepsea Atlantic	19:00	19:15	15	274	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting with new crew.	3S/11-B-11 HTS
28-feb-19	Deepsea Atlantic	18:00	19:00	60	274	31,1	PULL TUBING	100	Continue to POOH with 5-1/2" tubing with 2 control lines from 398 m to 274 m. No cable clamps on stands while POOH. Boost riser on active system as triptank.	3S/11-B-11 HTS
28-feb-19	Deepsea Atlantic	17:10	18:00	50	398	6,74	COMPENSATE THROUGH BOP	100	Continue to POOH two double 5-1/2" tubing with 2 control lines from 446 m to 398 m to space out for pulling through BOP. Compensate gauge assy and cut tubing through BOP. No cable clamps on stands while POOH. Boost riser on active system as triptank.	3S/11-B-11 HTS
28-feb-19	Deepsea Atlantic	12:00	17:10	310	446	31,1	PULL TUBING	100	Continue to POOH with 5-1/2" tubing with 2 control lines from 1797 m to 446 m. No cable clamps on stands while POOH. Boost riser on active system as triptank.	3S/11-B-11 HTS
28-feb-19	Deepsea Atlantic	00:00	12:00	720	1797	31,1	PULL TUBING	100	Continue to POOH with 5-1/2" tubing with 2 control lines from 2340 m to 1797 m. No cable clamps on stands while POOH. Boost riser on active system as triptank.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	21:30	00:00	150	0	31,1	PULL TUBING	100	POOH with 5½" tubing and 2 controllines from 2486m to 2340m. Use tugger and slings for securing control lines on every connection.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	20:45	21:30	45	2486	31,5	TERMINATING AND TESTING CONT LINES	100	Pull DHSV above RKB and cut controllines. Transfer same to aux well center, L/ D same.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	16:00	20:45	285	2486	31,1	PULL TUBING	100	POOH with 5-1/2" tubing and 3 control lines from 2690m to 2486m. Cut DHSV CL on every STD. Pull 2 controllines on to drum.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	15:30	16:00	30	2690	31,2	RIG UP TUBING	100	Cont. rig up equipment for cutting, securing and pulling controllines out of hole.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	15:00	15:30	30	2690	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Handover between shifts. Held prejobmeeting prior to pull 5-1/2" tubing with control lines.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	12:00	15:00	180	2690	6,33	CHANGE HANDLING EQUIPMENT	100	L/D TH-R/T and P/U MRT tool from deck. Install MRT tool to TH. P/U 10m with TH and string, install OWS hyudraulic 5½" slips. Rig up equipment for cutting, securing and pulling controllines safely out of hole.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	11:15	12:00	45	2690	6,33	CHANGE HANDLING EQUIPMENT	100	P/U tubing hanger RT. Not able to install TH-R/T to TH.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	10:00	11:15	75	2690	6,33	CHANGE HANDLING EQUIPMENT	100	Disconnect SLS and lay down same to RCWM. Bleed of lines on tubing hanger. Meanwhile prepare swedge with kelly cock and OWS hydraulic autoslips for POOH with 5-1/2" tubing	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	07:45	10:00	135	2690	31,41	PULL TUBING ON LANDINGSTRING	100	POOH with tubinghanger and 5½" tubing on 5 7/8"HWDP from 3059m to 2690m. Reduced speed due to djupvik clams, umbillical and wellcontroll precaution.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	07:30	07:45	15	3059	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to pull out with SLS and umbilical.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	07:15	07:30	15	3059	6,41	FLOW CHECK	100	Perform flow check. Well static. Meanwhile remove rope between landing string and umbilical.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	07:05	07:15	10	3070	31,41	PULL TUBING ON LANDINGSTRING	100	Wait 10 min for annular element to retract. POOH from 3070 m to 3059and perform new flow check while production line in TH are in upper annular.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	06:45	07:05	20	3070	6,41	FLOW CHECK	100	Held flow check. Flow check ok. Well static.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	06:30	06:45	15	3070	31,41	PULL TUBING ON LANDINGSTRING	100	Pull and strip tubing out 0,40 m such that slick sub is in LAP. Prior to take flow check.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	05:15	06:30	75	380	26,91	Work with Subsea EQ in WH area	100	Sat following HXT valve status for Circ. With returns up annulus according to Aker Rep. Make sure AV line to WOCS is closed. Moniter well. Well static. Sat following HXT valve status for releasing and pulling TH Acc. to Aker Rep. Unlock TH. Wait 10 min to allow lock ring to collapse and seal to relax	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	04:45	05:15	30	380	15,11	PRESSURE TEST BOP	100	Preform pressure test 3 on BOP. Closed LAP and pressure test same to 20/ 300 Bar. Held prejobmeeting prior to pull 5 1/2" tubing.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	03:50	04:45	55	380	6,22	WASH DOWN	100	Establish Circ. in steps to 1000LPM- 3 Bar. Wash down to 1 m above landing point, stopped pumps and landed Acc. to baker with ST.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	03:30	03:50	20	360	31,51	SPACE OUT AND LAND TUBING HANGER.	100	Con. TD to string and line up kill/ choke to atmosphere. Record up 92t and down 92t weight.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	01:00	03:30	150	360	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH with reduced speed due to fullbore SLS tool and mounting umbillical to 5 7/8"HWDP with Djupvik clamps.. Meanwhile surfacetest down choke line to 300bar.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	00:45	01:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting prior to run SLS.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	00:30	00:45	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean aded clear rig floor prior for next operation.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	00:15	00:30	15	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	R/ D WL Equip.	3S/11-B-11 HTS
27-feb-19	Deepsea Atlantic	00:00	00:15	15	0	11,03	WL OPERATIONS	97	POOH with WL string. Deactivate AHC at 100 m.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	23:30	00:00	30	380	11,03	WL OPERATIONS	97	RIH to pull THIS in HXT. Actvate WL compensation at 100 m.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	22:45	23:30	45	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rebuild WL running string for pulling THIS. Meanwhile continue to pressuretest THIS - nogo.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	22:30	22:45	15	0	11,03	WL OPERATIONS	97	POOH with WL string. Deactivate AHC at 100 m.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	21:15	22:30	75	380	11,03	WL OPERATIONS	97	Set THIS in HXT. Attempt to manual jar THIS in position - nogo. Set pressure on AV line, open XOV and open PMV. No pressure buildup, indicates THIS not in position.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	21:00	21:15	15	380	11,03	WL OPERATIONS	97	RIH and install THIS in HXT. Activate WL compensation at 100 m.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	20:40	21:00	20	20	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rig up toolstring and to install THIS in HXT.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	20:25	20:40	15	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rig down toolstring and disconnect THIS from RT.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	20:10	20:25	15	20	11,03	WL OPERATIONS	97	POOH with THIS from 380m to 20m. Meanwhile prejobmeeting prior to rig down toolstring an release THIS from RT.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	20:05	20:10	5	380	11,03	WL OPERATIONS	97	Latch on THIS and release plug.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	19:45	20:05	20	380	11,03	WL OPERATIONS	97	RIH with toolstring to retrive THIS on slickline. Start WL compensation 100m.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	19:25	19:45	20	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rig up tool string and slick line for retriving THIS.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	19:10	19:25	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	97	Prejobmeeting prior to rig up wirwline for pull THIS.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	18:00	19:10	70	0	41,01	WAIT ON 3.PART	97	Deepwell to prepare next run for retrieving THISL. Meanwhile clean and clear rigfloor.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	17:30	18:00	30	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Pressure test THIS from WOCS. Not able to get stable pressure.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	16:30	17:30	60	0	11,03	WL OPERATIONS	97	RIH with wireline toolstring. Land THIS according to Baker. Release running tool from THIS and POOH.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	16:15	16:30	15	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Make up wireline toolstring according to Deepwell. Meanwhile open PBT and purge 10 ltr from WOCS. Close PBT. Open XOV and ACV1 and ACV2 with ROV.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	16:00	16:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	97	Preejobmeeting prior to install THIS.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	14:30	15:00	30	380	11,03	WL OPERATIONS	97	Latch on to plug and jar upwards. Confirmed extra weight on toolstring.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	14:30	16:00	90	0	11,03	WL OPERATIONS	97	POOH with wireline toolstring to RKB. Plug latched. Lay down wireline toolstring according to Deepwell.	3S/11-B-11 HTS

26-feb-19	Deepsea Atlantic	13:00	14:30	90	380	11,03	WL OPERATIONS	97	RIH with wire line toolstring from RKB to 380m. Build toolstring on the fly in rotary using C-plate. RIH to 100 m and activate compensator.Latch on to plug and jar upwards. Confirmed extra weight on toolstring.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	12:45	13:00	15	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rig up for run wire line.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	12:30	12:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	97	New prejob meeting after change in planes prior to pick up wire line tool string.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	12:15	12:30	15	0	41,01	WAIT ON 3.PART	100	Deepwell to prepare wireline BHA. Meanwhile prepare wireline rig up on drillfoor.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	12:00	12:15	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Install lowers part of MSP tool after machined. Meanwhile clean and clear rigfloor.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	11:30	12:00	30	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Transfer MSP tool to AUX and stripped down lowes part of tool and machined in lathe. Meanwhile Deep Well wire line crew start to set up tool string and equipment.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	11:15	11:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting with all involved personell prior to rigging up for wireline operations.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	11:00	11:15	15	0	6,11	LAY DOWN BHA	100	Management of change - L/D MSP tool to prepare for wireline operations.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	10:30	11:00	30	0	6,41	FLOW CHECK	100	Open both ACV valves on HXT. Close BSR and open kill line failsafe valves. Flow check and monitor well up kill line. Cloce AVV 1& 2.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	10:15	10:30	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear DF. Prepare for next run.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	09:50	10:15	25	0	6,11	LAY DOWN BHA	100	Remove innerbushings and POOH with MSP tool guiding with DFMA. No plug attached to tool.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	09:20	09:50	30	15	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	Open Annular and wait for element to fully retract. POOH from 378m to 15m with MSP tool and plugg. Reduced trippingspeed due to fullbore and according to Interwell.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	09:00	09:20	20	378	12,88	SET/RELASE MECH PLUGS	100	Ventilate up chokeline. Close lower annular, take up/down weight - 76/68ton. Slowly strip inn to enter TH Plugg according to Interwell. Apply 5-6 ton down weight to engage plugg. Slowly P/U. Observe max upweight 80 ton. Continue P/U until centralizer stops in lower annular.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	08:00	09:00	60	378	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	Cont RIH on 5 7/8" DP from 15m to 378m according to Interwell. Reduced trippingspeed due to fullbore and according to Interwell.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	07:40	08:00	20	15	6,1	MAKE UP BHA	100	Re-build MSP Tool and RIH with tool assy. from RKB to 15m	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	07:00	07:40	40	0	6,11	LAY DOWN BHA	100	Pull slowly through rotary with Multi Setting Pulling tool. Observed that Tubing Hanger plug was not engage to RT. Interwell REP change RT and test same.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	06:30	07:00	30	14	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	POOH with MSP on 5-7/8" DP from 360 m to 0 m. Use mudbucket.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	05:45	06:30	45	360	12,88	SET/RELASE MECH PLUGS	100	Install last stand. Run in hole and position string 3 m above landing depth. Close annular and record up- and downweight. Upweight 80 ton, downweight 72 ton. Slide under annular to verify correct depth. Slide down with open choke and set down 10 ton on plug Closed choke prior to pull plug free. Pressure up SPP to 9 bar. Open AV line in WOCS. Attempt to pull free LTHCP - no pressuredrop or overpull observed. Attempt to pull free plug three times - no verification on pulled plug. Evaluate situation. Close AV line. Observe well is stable. Open annular.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	05:25	05:45	20	360	6,4	FILL PIPE	100	Fill pipe without connecting TD.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	05:10	05:25	15	360	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH with MSP on 5-7/8" DP from 14m to 360m.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	03:50	05:10	80	0	6,1	MAKE UP BHA	100	Rebuild MSP tool on surface tested same on surface.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	03:25	03:50	25	0	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	POOH with MSP on 5-7/8" DP from 360 m to 0 m.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	01:35	03:25	110	360	12,88	SET/RELASE MECH PLUGS	100	Install last stand. Run in hole and position string 3 m above landing depth. Close annular and record up- and downweight. Upweight 83 ton, downweight 72 ton. Slide under annular to verify correct depth. Slide down and set down 10 ton on plug. Pressure up SPP to 9 bar. Open AV line in WOCS. Attempt to pull free LTHCP - no pressuredrop or overpull observed. Attempt to pull free plug three times - no verification on pulled plug. Evaluate situation. Close AV line. Observe well is stable. Open annular.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	01:25	01:35	10	360	6,4	FILL PIPE	100	Fill pipe without connecting TD.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	00:50	01:25	35	360	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH with MSP on 5-7/8" DP from 14m to 360m.	3S/11-B-11 HTS
26-feb-19	Deepsea Atlantic	00:00	00:50	50	14	6,1	MAKE UP BHA	100	P/U MSP and inspect same. Perform surface test on same assy, observed plugged nozzle. Broke out MSP tool and clean. Re-take surfacetest with 170 lpm - 22 bar open /8 bar close.. Meanwhile P/U SLS to RCW and attach umbilical to same.	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	23:45	00:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting prior to RIH with MSP.	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	23:15	23:45	30	0	6,11	LAY DOWN BHA	100	POOH and inspect MSP/ THCP and L/ D same to RCW.	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	23:00	23:15	15	23	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	POOH with MSP/ THCP on 5 7/8" from 340m to 23m	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	21:50	23:00	70	340	12,88	SET/RELASE MECH PLUGS	100	Run in and Close annular at 370m. Slide down and sat down 6 T and latch on plug, pressured up to 10 Bar. Pulled plug free with 8 T OP. Flow check trough AV line. Flow check ok. Well static. Open annular.	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	20:35	21:50	75	340	5,02	DISPLACE WELL/RISER	100	Displace riser from SW to 1,05sg NaCl. fill pipe. Meanwhile Preform prejobmeeting for pull UTHCP.	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	20:15	20:35	20	340	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH with MSP on 5-7/8" DP from 23m to 340m.	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	20:00	20:15	15	23	15,07	FUNCTION TEST DIVERTER	100	Test diverter. stb selected.	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	19:15	20:00	45	0	6,1	MAKE UP BHA	100	Pick up BHA. Preform surface test. Pumped with 270lpm,pump pressure open 23bar, pump pressure close 10bar.	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	19:00	19:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting before pick up BHA.	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	18:30	19:00	30	0	12,88	SET/RELASE MECH PLUGS	100	Set valve status on XMT.	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	18:15	18:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Pre job meeting prior to pull THCPS	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	17:45	18:15	30	0	25,22	DROP's Inspection	100	Drop check to pull free after jaring.	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	17:15	17:45	30	0	6,33	CHANGE HANDLING EQUIPMENT	100	Install torque wrench.	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	16:00	17:15	75	0	14,17	RIG DOWN BOP RUNNING EQUIPMENT	100	Change inserts in BX to 5-7/8" and install shackle sub. Install loading frame in front of RCWM. Lift spider on frame and secure same.Install funnel in rotary. Install adapter ring, outer bushings and master bushing.	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	14:15	15:00	45	0	14,23	RUN, LP-RISER / DIVERTER	100	P/U diverter from RCWM and install in rotary.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	14:15	16:00	105	0	14,23	RUN, LP-RISER / DIVERTER	100	P/U diverter from RCWM and install in rotary. Lay down diverter running tool. Fill riser with SW.	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	14:00	14:15	15	0	6,33	CHANGE HANDLING EQUIPMENT	100	Change inserts in BX. Arrange all hydraulick hoses for the Riiser R/T and secure them to TD.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	14:00	14:15	15	0	6,33	CHANGE HANDLING EQUIPMENT	100	Change inserts in BX. Arrange all hydraulick hoses for the riser running tool and secure them to TD.	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	13:45	14:00	15	0	14,17	RIG DOWN BOP RUNNING EQUIPMENT	100	Breake out and lay down landing joint in RCWM. Rig down riser running tool and lay down same.	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	13:45	14:00	15	0	14,17	RIG DOWN BOP RUNNING EQUIPMENT	100	Loosen all riserbolts and L/D landing joint in RCWM. L/D Riiser R/T.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	12:30	13:45	75	0	14,17	RIG DOWN BOP RUNNING EQUIPMENT	100	Prepare to lay down landing joint. Meanwhile perform connector test 20 /300 bar 5/10 min. Total pumped 81 ltr and 62 ltr in return.	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	12:30	13:45	75	0	14,17	RIG DOWN BOP RUNNING EQUIPMENT	100	Prepare to lay down landing joint. Meanwhile perform connector test 20 /300 bar 5/10 min. Total pumped 81 ltr and 62 ltr in return.	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	12:00	12:30	30	0	14,34	JUMP BOP	100	Optimize rig position. Install guide line ancors. Run slowly down and land BOP 12.25 hrs. Set down 30 ton. Activate well head connector. ROV observe and verify flag indicator. volume counter on BOP panel count 20 gallon ok.	3S/11-B-11 HTS
25-feb-19	Deepsea Atlantic	12:00	12:30	30	367	14,34	JUMP BOP	100	Optimize rig position. Install guide line ancors. Run slowly down and land BOP 12.25 hrs. Set down 30 ton. Activate well head connector. ROV observe and verify flag indicator. volume counter on BOP panel count 20 gallon ok.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	11:15	12:00	45	367	14,34	JUMP BOP	100	Collapse inner barrel. Disconnect well head connector. Pull BOP above structure. Move rig from B-12 to B-11. Rov inspect well head connector.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	09:30	11:15	105	367	14,33	PREPARE TO JUMP BOP	100	Install Riser R/T. P/U Riser landingjoing from RCWM and M/U to slip joint. Install VX ring on B-11.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	09:15	09:30	15	0	6,33	CHANGE HANDLING EQUIPMENT	100	Change handling equipment to P/U Riser R/T.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	08:25	09:15	50	0	14,24	PULL ,LP-RISER /DIVERTER	100	P/U diverter R/T from RCWM. Install R/T in diverter, P/U and land in spider. Disconnect diverter and L/D to RCWM.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	07:15	08:25	70	0	14,33	PREPARE TO JUMP BOP	100	Continue to rig up BOP handling equipment. Meanwhile ballast rig to 23m draft.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	07:00	07:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting with crew prior to rigging up equipment for L/D diverter and jumping BOP.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	05:30	07:00	90	0	14,18	RIG UP BOP RUNNING EQUIPMENT	100	Remove torquewrench. Perform breaktest of DW. Install shackles sub in elevator. Remove masterbushing, split bushing, solid adapter ring and install riiserspider. Rig down riiser spider equipment. Meanwhile deballast rig to 21m draft.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	05:15	05:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting prior to rig up for jumping BOP.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	04:30	05:15	45	0	5,02	DISPLACE WELL/RISER	100	Empty triptanks. Displace riser to SW by pumping down kill-, choke- and boosterline. Pump with 4000 lpm. Pump total of 4500 stokes - 84 m3.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	03:45	04:30	45	0	13,2	PRESSURE TEST OF CASING	100	Line up for pressuretest of 10-3/4" GTV against BSR and BOP test # 9. Verify lineup with 10 bar on line prior to open failsafe. Pressuretest to 20 bar/5 min and 300 bar/10 min. Bleed down and open BSR. Meanwhile held prejobmeeting for displacement of riser to SW. Start to deballast rig to 21 m draft.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	02:45	03:45	60	0	6,11	LAY DOWN BHA	100	POOH with 10-3/4" GTV RT from 360 m to surface on 5-7/8" HWDP. P/U double from RCWM. Lay down GTV RT assy to RCWM.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	02:35	02:45	10	360	6,74	COMPENSATE THROUGH BOP	100	Disconnect TD. POOH with 1 ea stand 5-7/8" HWDP. Compensate through BOP with 10-3/4" GTV RT on 5-7/8" HWDP.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	02:30	02:35	5	425	12,88	SET/RELASE MECH PLUGS	100	Release RT from GTV plug according to Baker instructions.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	01:00	02:30	90	463	13,2	PRESSURE TEST OF CASING	100	Increase pressure to 100 bar from cementunit. Observe for leakage to triptank, increase in SPP and at WOCS. Found leakage on needle valve in WOCS on control line to DHSV. Isolation valve on HXT also open. Closed isolation valve on HXT and verified stabile pressure in steps of 20 bar/100 bar/200 bar/300 bar. Bleed down pressure from cementunit. Open annular.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	00:30	01:00	30	463	41,2	WAIT ON INSTRUCTIONS	100	Evaluate further operation.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	00:15	00:30	15	463	13,2	PRESSURE TEST OF CASING	100	Preformed line test 50 bar, ok. Changed from LAP to UAP and pressure test to 50 bar, no go.	3S/11-B-12 AH
25-feb-19	Deepsea Atlantic	00:00	00:15	15	463	13,2	PRESSURE TEST OF CASING	100	Sat 20 bar on SSP to pressure up well to 20 bar. Increased annulus pressure to 50 bar - pressure dropped to 40 bar after 2 min. Bleed off pressure.	3S/11-B-12 AH
24-feb-19	Deepsea Atlantic	23:45	00:00	15	463	41,2	WAIT ON INSTRUCTIONS	97	Evaluate further operations.	3S/11-B-12 AH
24-feb-19	Deepsea Atlantic	22:40	23:45	65	463	13,2	PRESSURE TEST OF CASING	100	Line up for pressuretest of 10-3/4" GTV plug. Set 10 bar on SPP to observe if leak across plug. Close lower annular and line well on triptank. Verify lineup with 10 bar on failsafe. Attempt to pressuretest plug to 20 bar/5 min. Nogo. No pressurebuild up observed on SPP.	3S/11-B-12 AH
24-feb-19	Deepsea Atlantic	22:05	22:40	35	463	12,88	SET/RELASE MECH PLUGS	100	Connect TD. Fill pipe. Record up/down weights. Up 99t, down 98t. Position string 1,5 meter over settingdepth. Set bottom plug with 8 rotations at 425m RKB. Preform packer setting sequence according Baker - total of 30 ton up and 30 ton down. Set down 2 ton of landingstring on plug. Meanwhile perform surface test to 300 bar prior to test plug.	3S/11-B-12 AH
24-feb-19	Deepsea Atlantic	21:50	22:05	15	434	6,74	COMPENSATE THROUGH BOP	100	Compensate 8" DC stand under GTV plug through BOP. Install new 5-7/8" HWDP stand. Compensate 10-3/4" GTV plug through BOP.	3S/11-B-12 AH

									Install 2 ea XO. P/U GTV plug and inspect same. Remove safety clamp. RIH with 10-3/4" GTV	
24-feb-19	Deepsea Atlantic	21:20	21:50	30	358	6,1	MAKE UP BHA	100	plug on 5-7/8" HWDP from surface to 358 m.	3S/11-B-12 AH
24-feb-19	Deepsea Atlantic	21:05	21:20	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejobmeeting with crew prior to build BHA / 10-3/4" GTV plug.	3S/11-B-12 AH
									Change handeling equipment from 5-7/8" to 6-5/8". RIH with 1 ea stand 8" DC. Change	
24-feb-19	Deepsea Atlantic	20:50	21:05	15	0	6,33	CHANGE HANDLING EQUIPMENT	100	handlingequipment from 6-5/8" to 5-7/8".	3S/11-B-12 AH
24-feb-19	Deepsea Atlantic	20:40	20:50	10	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor. Prepare tally for next operation.	3S/11-B-12 AH
									POOH with BHA on 5-7/8" HWDP from 428 to surface. Compensate through BOP. L/D GTV	
24-feb-19	Deepsea Atlantic	19:30	20:40	70	0	6,11	LAY DOWN BHA	100	plug and scrape to RCWM.	3S/11-B-12 AH
24-feb-19	Deepsea Atlantic	19:00	19:30	30	428	12,88	SET/RELEASE MECH PLUGS	100	Scrape 10-3/4" casing from 428m to 390m 5 times, pump with 1000 lpm.	3S/11-B-12 AH
24-feb-19	Deepsea Atlantic	18:30	19:00	30	430	6,08	POOH CH reduced speed	100	POOH from 533m to 430m with GTV plug according to Baker instruction.	3S/11-B-12 AH
									RIH from 496 m to 533 m. Set GTV plug and attamt to get positive ptessure test. NOGO.	
									Release R/T and POOH to 529m. Close lower annular. Attemt. Pressure down chokeline	
									between lower annular and plug. NOGO. Attemt to increase pressure to 60bar, pressure	
24-feb-19	Deepsea Atlantic	16:30	18:30	120	533	12,88	SET/RELASE MECH PLUGS	100	drop. RIH and connect R/T to GTV plug.	3S/11-B-12 AH
24-feb-19	Deepsea Atlantic	15:15	16:30	75	496	41,01	WAIT ON 3.PART	100	Due to lekage on GTV plug., wait on furter instuction from Baker and Equinor.	3S/11-B-12 AH
									Deside to scrape plug area and re-set GTV plug. Release GTV plug and start pumping with	
									1000 lpm / 6 Bar while reciprocating string up and down @ plug set area. Set GTV plug	
									@492m. Attempt to pressure up and test GTV plug again. Test not approved. Decide to	
									disconnect GTV running tool and test GTV plug without runningtool. NOGO. Latch on to plug	
24-feb-19	Deepsea Atlantic	12:30	15:15	165	496	12,88	SET/RELASE MECH PLUGS	100	and release plu. Relax elements 10 min.	3S/11-B-12 AH
									Plugg is set. Try to pressuretest plug. Pressure drops. Set 10 bar inside drillpipe and pressure	
									up to 20 bar in annulus. Monitor pressurdrop in annulus whil pressure builds up in DP untill	
24-feb-19	Deepsea Atlantic	12:00	12:30	30	489	12,88	SET/RELASE MECH PLUGS	100	pressure is equalized, confirming plug leaking.	3S/11-B-12 AH
									Install 1 std and M/U TD to string. Activate compensator. Start pumping with 1000 lpm.	
									Wash and scrape setting area from 475m to 495m. Place plug 2 meters above settingdepth	
									@485m. Start rotating string clockwise (16 turns) and move string slowly down. 2KNm	
24-feb-19	Deepsea Atlantic	11:15	12:00	45	489	12,88	SET/RELASE MECH PLUGS	100	recorded rotational torque.	3S/11-B-12 AH
									Cont RIH from 100 m to 468m. Compensate trough BOP. Reduced speed according to Baker	
									GTV plugg representativ. Space out to place single DP in upper annular and GTV plug in the	
24-feb-19	Deepsea Atlantic	10:00	11:15	75	468	6,07	RIH CH Reduced speed	100	middleof two casing connections.	3S/11-B-12 AH
									Pick up scraper, GTV and running tool. 2 X S 7/8 HWDP stand. 1 X S 7/8" Pup joint. 1 X S	
24-feb-19	Deepsea Atlantic	09:00	10:00	60	100	6,1	MAKE UP BHA	100	7/8" HWDP joint.	3S/11-B-12 AH
24-feb-19	Deepsea Atlantic	08:45	09:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to run 10 3/4" GTV plug.	3S/11-B-12 AH
24-feb-19	Deepsea Atlantic	08:30	08:45	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear. Prepare for next run.	3S/11-B-12 AH
24-feb-19	Deepsea Atlantic	07:50	08:30	40	0	6,11	LAY DOWN BHA	100	POOH with BHA from 134 m to RKB. L/D GTV plug assy to RCWM.	3S/11-B-12 AH
24-feb-19	Deepsea Atlantic	07:00	07:50	50	134	6,08	POOH CH reduced speed	100	POOH with 10¾" GTV plugg from 528m to 134m. Pull wet using mudbucket.	3S/11-B-12 AH
									Line up and run in and latch on to 10 3/4" GTV plug. Release plug. Wait for 10 min to retrack	
24-feb-19	Deepsea Atlantic	06:35	07:00	25	528	12,88	SET/RELASE MECH PLUGS	100	elements prior to POOH.	3S/11-B-12 AH
24-feb-19	Deepsea Atlantic	06:00	06:35	35	515	41,2	WAIT ON INSTRUCTIONS	97	Evaluate further operation.	3S/11-B-12 AH
									Line up for BOP test # 5 (LPR) against 10-3/4" GTV plug down drillstring and choke line.	
									Perform pressuretest to 20 bar/5min, observe leakage when increasing pressure to 300 bar.	
24-feb-19	Deepsea Atlantic	05:15	06:00	45	515	15,11	PRESSURE TEST BOP	100	Bleed down pressure.	3S/11-B-12 AH
									Re-set GTV plug, bottom of at 527,4m and top at 522,5m. Perform overpull and set down to	
24-feb-19	Deepsea Atlantic	05:00	05:15	15	528	12,88	SET/RELASE MECH PLUGS	100	30 ton in steps to verify plug set. Release RT from GTV plug.	3S/11-B-12 AH
24-feb-19	Deepsea Atlantic	04:40	05:00	20	527	12,88	SET/RELASE MECH PLUGS	100	Run past settingdepth at 524 m to verify plug released. Wash with 800 lpm/5 bar	3S/11-B-12 AH
24-feb-19	Deepsea Atlantic	04:20	04:40	20	524	12,88	SET/RELASE MECH PLUGS	100	RIH and latch on to 10-3/4" GTV plug. Release plug. Wait 10 min to retrack packer elements.	3S/11-B-12 AH
									Pull out 9.5m to space out for closing BOP. Verify spaceout by pulling tooljoint under upper	
									annular. Open annular and position string for BOP test. Pressure test upper annular, GTV	
									plug and IBOP to 20 bar/5 min. Still observing leakage when high pressure. Flush standpipe	
									and drillpipe to eliminate possible air in system. Line up down choke and standp to prevent	
									lift in pipe. Line up for BOP test # 4 to eliminate leakage in BOP system. Perform surface line	
24-feb-19	Deepsea Atlantic	02:45	04:20	95	515	15,11	PRESSURE TEST BOP	100	test - ok. Evaluate situation. Decided to release 10-3/4" GTV plug.	3S/11-B-12 AH
									Release runningtool from plug to eliminate leak in runningtool seals. Pull up one singel to	
24-feb-19	Deepsea Atlantic	02:30	02:45	15	524	12,88	SET/RELASE MECH PLUGS	100	continue with BOP test.	3S/11-B-12 AH
									Line up for BOP test # 3. Pressure test BOP to 20 bar/5 min and 300 bar/10 min. Observed	
									leak at high pressure test. Bleed down pressure and line up from upper to lower annular and	
									change failsafes to eliminated possible leak in BOP. Still leak on high pressure test. No	
24-feb-19	Deepsea Atlantic	01:20	02:30	70	524	15,11	PRESSURE TEST BOP	100	standpipe pressure buildup observed through sting.	3S/11-B-12 AH
									Open annular and position string. Set plug at 524 m bottom plug. 9 rotations from start	
									sequence to set plug. Preform overpull and down weights sequence according to baker	
24-feb-19	Deepsea Atlantic	01:10	01:20	10	524	12,88	SET/RELASE MECH PLUGS	100	prosedure. Pull total of 30 ton and set down total of 30 ton on plug.	3S/11-B-12 AH
									Record up down weights. Up 99 t, down 98 t. Position string and pull tooljoint under annular	
24-feb-19	Deepsea Atlantic	00:30	01:10	40	520	12,88	SET/RELASE MECH PLUGS	100	with reduced pressure to verify spaceout for setting plug and at same time perform BOP test.	3S/11-B-12 AH
									RIH with 10-3/4" GTV plug on 5-7/8" HWDP. Connect TD. Perform BOP test # 1 and BOP test	
24-feb-19	Deepsea Atlantic	00:00	00:30	30	500	6,07	RIH CH Reduced speed	100	# 2 to 20 bar/5 min and 300 bar/10 min while RIH with GTV plug.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	23:30	00:00	30	20	6,07	RIH CH Reduced speed	100	RIH with 10 3/4" GTV plug on 5 7/8" HWDP	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	23:15	23:30	15	0	6,1	MAKE UP BHA	100	P/U and M/U 10 3/4" GVT plug.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	23:00	23:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting for P/U and M/U GTV plug assembly and run in hole with same.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	22:30	23:00	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rig floor prior to run shalow plug.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	21:45	22:30	45	0	6,11	LAY DOWN BHA	100	Rack back 1 stand 5-7/8" HWDP. B/O fishing jar and overshot assy.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	21:30	21:45	15	40	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to L/D Overshot and jar assy.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	21:00	21:30	30	40	25,22	DROP's Inspection	100	DROPS inspection of HR, TD and derrick after jaring operations and prior to L/D BHA.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	20:50	21:00	10	40	6,11	LAY DOWN BHA	100	POOH with Overshot assy on 5-7/8" HWDP from 118 m to 40 m.	3S/11-B-12 AH
									POOH from 554m to 118m with Overshoot assy on 5-7/8" DP. Lay down double.	
23-feb-19	Deepsea Atlantic	20:15	20:50	35	118	6,01	POOH CH	100	Compensate through BOP. P/U double.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	20:00	20:15	15	554	19,01	FISHING, OTHERS	100	Release overshoot according to Baker rep. prior to POOH.	3S/11-B-12 AH
									M/U TD to string. Start pumping and rotating string with 20 rpm/350 lpm. Upweight 86 ton.	
									Compensate string and RIH to tag 5½" tubing and engage overshot. Attempt to pull with 295	
									ton without releasing tubing. Engage & activate jar. Jar up. Try to pull free between jaring.	
23-feb-19	Deepsea Atlantic	17:55	20:00	125	554	19,01	FISHING, OTHERS	100	Max pull 316 ton hookload. Jared up 37 times but not able to pull 5 1/2"" free.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	17:35	17:55	20	534	6	RIH CH	100	Continue RIH from 380 m to 534 m.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	17:30	17:35	5	380	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with overshot BHA.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	17:15	17:30	15	350	6	RIH CH	100	RIH from 157 m to 350 m.	3S/11-B-12 AH
									Pick up bumper sub using tugger. Install handling pup and lay down in catwalk. Pick up	
									overshot and make up same. Install bumper sub and breake out handling pup. Install jar	
23-feb-19	Deepsea Atlantic	15:15	17:15	120	157	6,1	MAKE UP BHA	100	stand from rack. RIH on 5-7/8" HWDP. Lay down double 5-7/8" DP.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	15:00	15:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to build fishing BHA.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	14:45	15:00	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Remove pipe doper and auto slips. Clean and clear rigfloor.	3S/11-B-12 AH
									Start POOH with BHA from 140m to RKB. L/D Xtreem magnet assy and venturi assy to	
23-feb-19	Deepsea Atlantic	14:00	14:45	45	0	6,11	LAY DOWN BHA	100	RCWM. B/O bottom X/O on Fishing jar assy and rack back.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	13:00	14:00	60	140	6,08	POOH CH reduced speed	100	Start POOH from 554m to 140m with venturi assy. Reduced speed due to use of mud bucket.	3S/11-B-12 AH
									Connect topdrive and fill pipe. Performed torque readings. Continue RIH to 551 m. Tag cut	
									with 1,5 ton. Continue rotate down to 554 m. Start circulate with 1600 lpm / 100 bar. POOH	
23-feb-19	Deepsea Atlantic	12:45	13:00	15	554	5,01	CIRCULATE HOLE CLEAN	100	slowly while rotating 10 RPM.	3S/11-B-12 AH
									RIH with venturi assy from 348m to 540 m. Reduced speed due to possible restrictions in	
23-feb-19	Deepsea Atlantic	12:00	12:45	45	540	6,07	RIH CH Reduced speed	100	well.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	11:15	12:00	45	348	6,07	RIH CH Reduced speed	100	RIH with venturi assy from 140m to 348m.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	10:30	11:15	45	0	6,1	MAKE UP BHA	100	RIH while B/U Venturi BHA from RKB to XXXm.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	07:50	10:30	160	0	6,1	MAKE UP BHA	100	Rebuild Ventuir assy with use of manual rig tongs.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	07:40	07:50	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to pick up 8 1/2" Venturi assy and make up with manual rig tongs.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	07:05	07:40	35	0	6,11	LAY DOWN BHA	100	Rack back jar stand with X-Over. Lay down magnet assy and Junk Mill assy.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	07:00	07:05	5	30	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Tool box talk prior to lay down Junk Mill assy.	3S/11-B-12 AH
									Disconnect TD. POOH with 9-3/8" junk mill on 5-7/8" DP from 549 m to 133 m. Compensate	
23-feb-19	Deepsea Atlantic	06:15	07:00	45	133	6,01	POOH CH	100	through BOP. P/U singel from RCWM. Continue POOH to RKB.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	06:00	06:15	15	549	6,41	FLOW CHECK	100	Flowcheck well on active system for 10 min. Well static.	3S/11-B-12 AH
									Circulate hole clean with 3000 lpm - 46 bar. Boost riser with 1000 lpm. Bottom up 3700	
23-feb-19	Deepsea Atlantic	05:30	06:00	30	549	5,01	CIRCULATE HOLE CLEAN	100	strokes. Pump total of 4750 strokes. No debries observed at shakers.	3S/11-B-12 AH
									Connect TD. Fill pipe. Record upweight 87 ton, downweight 87 ton. Tag top of 5-1/2" tubing	
									at 550,80 m with 5 ton. Start to dress 5-1/2" tubing cut with 100 rpm, 2-3 kNm torque, 2000	
									lpm, 22bar. Boost riser with 1000 lpm. Retag with 5 ton without rotation after dressing cut -	
23-feb-19	Deepsea Atlantic	04:45	05:30	45	551	35,01	MILLING	100	tag top of 5-1/2" tubing at 551,00 m.	3S/11-B-12 AH
									RIH with junk mill on 5-7/8" DP CE from 133m to 540 m. Lay down singel for spaceout.	
23-feb-19	Deepsea Atlantic	04:15	04:45	30	540	6	RIH CH	100	Compensate through BOP.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	03:50	04:15	25	133	6,1	MAKE UP BHA	100	P/U 9-3/8" junk mill, x-treme magnet and jar STD. RIH with 3 stands 5-7/8" HWDP.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	03:35	03:50	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting before pick up junkmill.	3S/11-B-12 AH
									POOH with HWDP and rope spear. Remove fish. Approximatley 7m hydraulic line. Lay down	
23-feb-19	Deepsea Atlantic	03:00	03:35	35	0	19,01	FISHING, OTHERS	100	rope spear assy.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	02:30	03:00	30	131	6,01	POOH CH	100	POOH wet trip with rope spear 549 m tp 131 m.	3S/11-B-12 AH
									Connect TD. Upweight 87 ton, downweight 86 ton. Tag control line fish at 552 m. Start	
									rotating at 1 kNm free torque. Set down 4t while rotating. Torque from 1 to 3 kNm. Pick up	
23-feb-19	Deepsea Atlantic	02:10	02:30	20	529	19,01	FISHING, OTHERS	100	weight and repeat sequence.	3S/11-B-12 AH
									RIH with Rope spear from 131 m to 529 m on 5-7/8" DP. Compensate through BOP. L/D	
23-feb-19	Deepsea Atlantic	01:30	02:10	40	529	6	RIH CH	100	double for spaceout fish.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	01:20	01:30	10	131	6,1	MAKE UP BHA	100	RIH with Rope spear, 5-7/8" singel DP and Jar assy on 3 stand 5-7/8" HWDP to 131 m.	3S/11-B-12 AH
									POOH with Rope spear. Remove fish with grinder - approximatley 100 m of control lines.	
23-feb-19	Deepsea Atlantic	00:30	01:20	50	0	19,01	FISHING, OTHERS	100	Decided to re-run Rope spear assy to attempt to remove more control lines.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	00:15	00:30	15	20	6,11	LAY DOWN BHA	100	POOH wet trip with rope spear on 5 7/8" HWDP from 131m to 20 m.	3S/11-B-12 AH
23-feb-19	Deepsea Atlantic	00:00	00:15	15	131	6,01	POOH CH	100	POOH wet trip from 281m to 131 m. Compensate trough BOP.	3S/11-B-12 AH
22-feb-19	Deepsea Atlantic	23:15	00:00	45	281	6,01	POOH CH	100	POOH wet trip from 549m to 281 m. Compensate trough BOP.	3S/11-B-12 AH
									Connect TD. Upweight 87 ton, downweight 86 ton. Tag control line fish at 549 m. Start	
									rotating at 1 kNm free torque. Set down 4t while rotating. Torque from 1 to 3 kNm. Pick up	
22-feb-19	Deepsea Atlantic	22:45	23:15	30	549	19,01	FISHING, OTHERS	100	weight and repeat sequence.	3S/11-B-12 AH
									RIH with Rope spear from 131 m to 529 m on 5-7/8" DP. Compensate through BOP. L/D	
22-feb-19	Deepsea Atlantic	22:00	22:45	45	529	6	RIH CH	100	double for spaceout fish.	3S/11-B-12 AH

22-feb-19	Deepsea Atlantic	21:45	22:00	15	131	6,1	MAKE UP BHA	100	RIH with Rope spear, 5-7/8" singel DP and Jar assy on 3 stand 5-7/8" HWDP to 131 m.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	21:00	21:45	45	0	19,01	FISHING, OTHERS	100	POOH with Rope spear. Remove fish with grinder - approximatley 25m of control lines. Decided to re-run Rope spear assy to attempt to remove more control lines.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	20:35	21:00	25	20	6,01	POOH CH	100	POOH wet trip with rope spear on 5 7/8" HWDP from 131m to 20 m.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	20:20	20:35	15	131	6,01	POOH CH	100	POOH wet trip with rope spear 549m tp 131m.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	19:50	20:20	30	549	19,01	FISHING, OTHERS	100	Connect TD. Upweight 87 ton, downweight 86 ton. Tag control line fish at 549 m. Start rotating at 1 kNm free torque. Set down 4t while rotating. Torque from 1 to 3 kNm. Pick up weight and repeat sequence.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	19:20	19:50	30	529	6	RIH CH	100	RIH with Rope spear from 131 m to 529 m on 5-7/8" DP. Compensate through BOP. L/D double for spaceout fish.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	18:30	19:20	50	131	6,1	MAKE UP BHA	100	RIH with Rope spear, 5-7/8" singel DP and Jar assy on 3 stand 5-7/8" HWDP to 131 m.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	18:15	18:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to pick up Rope Spear assy.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	18:00	18:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after POOH with Clean out assy.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	17:15	18:00	45	0	6,11	LAY DOWN BHA	100	Rack stand with X-O and jar. Lay down junk mill and magnet assy. Inspect same.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	16:30	17:15	45	360	6,74	COMPENSATE THROUGH BOP	100	Comp BOP. Pick up double 5-7/8" DP.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	16:15	16:30	15	400	6,01	POOH CH	100	POOH from 551 m to 400 m.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	15:20	16:15	55	550	6,07	RIH CH Reduced speed	100	Continue RIH from 400m while compensating in case of debries in well. Observed restriction @ 450 m 4 ton. Continue RIH to 2 m above cut @ 553 m. Max 11 ton WOB.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	15:10	15:20	10	400	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP / WH.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	15:00	15:10	10	360	6	RIH CH	100	RIH from 133 m to 360 m.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	14:30	15:00	30	133	6,82	RIH with BHA	100	RIH with Junk mill assy on 3 stand 5 7/8" HWDP from 22 m to 133 m.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	12:30	14:30	120	22	6,1	MAKE UP BHA	100	Pick up clean out BHA according to baker. Junk mill, Magnet assy, X-Over, jar and X-Over.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	12:00	12:30	30	0	41,2	WAIT ON INSTRUCTIONS	97	Wait for Equinor and Baker to decide which Fishing BHA to RIH.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	11:15	12:00	45	0	41,2	WAIT ON INSTRUCTIONS	97	Wait for Equinor and Baker to decide which Fishing BHA to RIH.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	11:00	11:15	15	0	6,15	CHECK OF HANDLING EQUIPMENT	100	Lubricate top drive and traveling block.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	10:45	11:00	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rigfloor.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	06:45	10:45	240	0	31,41	PULL TUBING ON LANDINGSTRING	100	POOH with 5 1/2" Tubing and secure control lines with wire clamps before cutting control lines and remove clamp`s. Inspect cut and lay down last 6 m.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	06:30	06:45	15	175	6,33	CHANGE HANDLING EQUIPMENT	100	Change handeling Equip. From 5-7/8" to 5-1/2".	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	05:20	06:30	70	175	31,41	PULL TUBING ON LANDINGSTRING	100	Brake out TH under 7" to 5-1/2" XO. Secure controle lines with wire clamps before cutting.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	05:05	05:20	15	185	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejob meeting prior to secure control lines, clamps and remove same.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	05:00	05:05	5	185	12,11	RIG UP CASING/LINER EQUIPMENT	100	Rig up 5-1/2" casing equipment.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	04:30	05:00	30	185	31,41	PULL TUBING ON LANDINGSTRING	100	Lay down THRT duo to problems to latch on tool. Pick up and install MRT to TH.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	02:30	04:30	120	185	31,41	PULL TUBING ON LANDINGSTRING	100	Pick up and install tubing hanger handling tool from catwalk. Trouble latch THHT to tubinghanger due to damage profile in hanger. Attempt to polish hanger to be able to connect RT.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	02:00	02:30	30	185	31,41	PULL TUBING ON LANDINGSTRING	100	Rig down SLS. Disconnect umbilical on drillfloor.	35/11-B-12 AH
22-feb-19	Deepsea Atlantic	00:00	02:00	120	185	31,41	PULL TUBING ON LANDINGSTRING	100	Pull tubing hanger and upper completion from cut above DHSV at 551,7m dephт. Remove umbilical clamps on every stand.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	23:30	00:00	30	300	31,1	PULL TUBING	100	Pull TH and part of upper completion. Volume control on active pit and boosting riser.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	23:15	23:30	15	356	6,41	FLOW CHECK	100	Flow check ok. Close all valves on XMT.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	23:00	23:15	15	356	31,1	PULL TUBING	100	Pull TH free with 8T OP. Pull THRT above BOP	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	22:00	23:00	60	380	6,22	WASH DOWN	100	Wash down with 1000LPM- 3 Bar and land THRT into TH Acc. Aker sat down 10 T, observed max 8% gas in return when washing in. Made strom loop and connected jumper to reel and lach THRT to TH Acc. to Aker. Preform 5 ton OP test to verify that THRT is lached to TH. Unlock TH and verify status for releasing and pulling TH Acc. to aker Rep.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	21:45	22:00	15	356	31,51	SPACE OUT AND LAND TUBING HANGER.	100	Con. Top driv to string. Preform up weight 92T and down weight 91T prior to land THRT in WH. Held pre- jobb meeting prior to land and pull free TH.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	20:00	21:45	105	356	6,07	RIH CH Reduced speed	100	RIH with THRT on 5 7/8" HWDP from 13m to 356m and attache djuvik clamps on every STD.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	19:15	20:00	45	13	6,1	MAKE UP BHA	100	P/ U and THRT from RCW and run same trough rotary, P/ U 1 SGL 5 7/8" HWDP from RCW prior to space out. Attach djupvik clamp`s on string when RIH.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	19:00	19:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held pre- jobb meeting with crew prior to P/ U THRT	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	18:15	19:00	45	0	31,2	RIG UP TUBING	100	Transfer THRT from deck to RCW with umbilical.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	18:00	18:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held pre- jobb meeting prior to P/ U THRT from deck and L/ D same to RCW.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	15:45	18:00	135	0	6,08	POOH CH reduced speed	100	POOH wet with 2 7/8" DP and L/D to RCWM from 177m to 0m	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	15:30	15:45	15	177	6,33	CHANGE HANDLING EQUIPMENT	100	Change handlig equipment from 5 7/8" to 2 7/8".	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	14:00	15:30	90	177	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Temporary stop in operation due to VIP meeting in driller cabin and demonstration of robot in AUX.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	13:00	14:00	60	177	6,08	POOH CH reduced speed	100	POOH wet with cut assy from 520 m to 177 m.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	12:45	13:00	15	520	6,74	COMPENSATE THROUGH BOP	100	Compensate thorugh BOP with NOGO.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	12:30	12:45	15	553	6,41	FLOW CHECK	100	Flowcheck well 10 min. Well static.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	12:00	12:30	30	553	12,3	CUT CASING	100	Pressure build up when trying to continue circulate.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	08:45	11:00	135	553	12,3	CUT CASING	100	Fill pipe without connecting Top Drive. Engage Top Drive, activate compensator and land NOGO in tubing hanger. Increase flow in steps to 660 lpm 65 bar. Cut tubing according to baker fishing rep. Observed pressure increase. Bleed of pressure. Pull up and re-land NOGO. Start circulation 400 lpm 55 bar. Observed pressure increase. Bleed of pressure.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	07:10	08:45	95	553	6	RIH CH	100	RIH with 5-7/8" DP from 188 mto 570 m. Compansate through BOP.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	07:00	07:10	10	188	6,1	MAKE UP BHA	100	P/U and M/U Assy #3 and X/O	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	06:45	07:00	15	172	6,33	CHANGE HANDLING EQUIPMENT	100	Change handling equipment 2-7/8" DP to 5-7/8"DP. Pick up assy 3. Install 5-7/8" DP slips.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	05:10	06:45	95	172	6,1	MAKE UP BHA	100	Run in hole with 2-7/8"DP from 28m to 144m	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	04:30	05:10	40	1	19,01	FISHING, OTHERS	100	Surface test of cutter assy. Motor rotate at 9 bar and 70 lpm. Cutter extend at 220 lpm and 14 bar. Brake down and XO and change jaws in casing tong.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	04:00	04:30	30	28	6,1	MAKE UP BHA	100	M/U XO assy, M/U same to string and connect topdrive to string and test cutter assy.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	02:45	04:00	75	28	6,1	MAKE UP BHA	100	P/U Assy 1, assy 2 and 2 pup`s and M/ U same with CSG tong.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	02:20	02:45	25	0	6,33	CHANGE HANDLING EQUIPMENT	100	Change handling equipment from 5-7/8" to 2-7/8". Install auto slips.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	01:00	02:20	80	0	12,11	RIG UP CASING/LINER EQUIPMENT	100	Install transport frame in front of RCWM. Land casing tong on same and secure. Transfer casingtong from RCW and land same in main well center. Connect hoses on casingtong and park same. Used extra time when preparing casingtong to main well center due to robot (unable to prepare casingtong in aux and move over til main WC as normal).	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	00:45	01:00	15	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	R/D WL equipment and L/D same to deck.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	00:30	00:45	15	0	11,03	WL OPERATIONS	97	L/D WL toolstring to RCW.	35/11-B-12 AH
21-feb-19	Deepsea Atlantic	00:00	00:30	30	0	11,03	WL OPERATIONS	97	Pull plug on WL up to RKB, verify plug on WL tool. Meanwhile held prejob meeting prior to L/ D WL toolstring and P/U CSG tong.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	23:15	00:00	45	0	11,03	WL OPERATIONS	97	Rebuild toolstring and RIH to 100m. Activate Com. Cont. RIH. Latch on plug and pull plug free.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	21:15	23:15	120	0	11,03	WL OPERATIONS	97	Rebuild toolstring and RIH to 100 m. Activate compensater. Continue RIH. Hung up in wellhead and unable to run further in hole. Pulled out and run in with drift run,passed wellhead and pulled out with same.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	21:00	21:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to rebuild toolstring and RIH to pull EVO plug.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	19:45	21:00	75	0	11,03	WL OPERATIONS	100	RIH with WL to retrive THS valve. Land on THS. Verify latch with 200 lbs OP. Jar upwards to release. POOH to RKB. L/D THS on DF.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	19:00	19:45	45	0	11,02	RIG UP OR DOWN FOR WIRELINE	100	Rig up for running wireline operation. M/U toolstring on drillfloor. Meanwhile set valve status on HXT.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	18:50	19:00	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to rig up for wireline operation.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	18:00	18:50	50	0	31,41	PULL TUBING ON LANDINGSTRING	100	Due to helicopter, waitng on deck to assist with crane while L/D SLS to Deck with umbilical from sheave in derrick attached. Meanwhile waiting, continue clean and clear drillfloor.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	17:10	18:00	50	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rigfloor after SLS and umbilical are L/D to RCWM.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	17:00	17:10	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrif after POOH with SLS and umbilical.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	16:00	17:00	60	0	31,41	PULL TUBING ON LANDINGSTRING	100	Lay out SLS with umbilical on catwalk and transfer to riser deck.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	13:30	16:00	150	0	31,41	PULL TUBING ON LANDINGSTRING	100	POOH with THRT on 5 7/8" HWDP from 380 m to RKB.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	12:45	13:30	45	380	31,41	PULL TUBING ON LANDINGSTRING	100	Aker attempt to lock TH, nogo. Release THRT from TH.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	12:30	12:45	15	380	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to lock TH and POOH with SLS and umbilical.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	12:00	12:30	30	380	31,41	PULL TUBING ON LANDINGSTRING	100	Decided to POOH with SLS.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	10:00	12:00	120	380	31,41	PULL TUBING ON LANDINGSTRING	100	Decided to work with OP up to 260 ton on TH, in steps, Nogo. E-red valve closed @ 11:00 hrs, (12 hrs since opening). Line up from cementer down string for check E-red closed, stoped pumping after 170 liter, (10-150 bar), teoretical volum to pressure up E-red: 38 liter. Indicated E-red still open. Wait for 30 minutes. Pressure up again with cementer,E-red closed.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	09:00	10:00	60	380	31,41	PULL TUBING ON LANDINGSTRING	100	Work with string, up to 170 ton OP on TH, while wait for decision. Pull up to 170 ton OP on TH.Circulate/clean with 163 liter/12 bar for 10 min.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	07:15	09:00	105	380	31,41	PULL TUBING ON LANDINGSTRING	100	Unlock TH. Waited 10 min to allow lock ring to collapse and seal to relax. Pull tubing free from XT. Strip out 0,4 m. Flowcheck 10 minutes, Open LAP. OP observed when attempt to pull TH 6,4 m to position lowest SLS sub in UAP. Retry several times up to max 260 ton block weight. Sat down weight, attempt to establish circulation, pressure buildt up to 20 bar. Pull up to 260 ton hookload, pressure drop, establish circulation and observed return on triptank. Indicate TH pulled free. Aker circulate through THT, indicate TH free from. Work with weight up to 170 ton OP on tubing	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	07:00	07:15	15	380	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to pull tubing free.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	06:30	07:00	30	380	31,41	PULL TUBING ON LANDINGSTRING	100	Set valve status prior to releasing and pulling TH according to Aker representativ.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	06:05	06:30	25	380	31,41	PULL TUBING ON LANDINGSTRING	100	Cross circulate on kill and choke lines.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	05:45	06:05	20	380	6,41	FLOW CHECK	100	Stop pumping and performe a flow check. Well static.	35/11-B-12 AH
20-feb-19	Deepsea Atlantic	00:00	05:45	345	380	31,41	PULL TUBING ON LANDINGSTRING	100	RIH on 5 7/8" HWDP landing string to above BOP. Install side entry stand. Install cement hose on side entry sub. Make up Top Drive to landing string. Ventilate kill and choke lines, activate compensator. Establish circulation down string in steps to 1000 lpm / 3 bar. Wash down to 1 m above. Stop pump pumps and ventilate string. Land THRT on TH and set down 10 ton. Perform 20 ton OP test on TH. Close kill and choke. Close lower annular. Line up to circulate down string and return up choke line and poor boy degasser. Set valve status HXT for circulating down string and returns to annulus side. Start pumping 1, 12sg brine down drillpipe. No pressure build up. Bleed off and line up to reverse circulate with return via side entry sub to poorboy degasser. Circulate for 10 min.	35/11-B-12 AH
19-feb-19	Deepsea Atlantic	23:15	00:00	45	15	31,41	PULL TUBING ON LANDINGSTRING	100	RIH on 5 7/8" HWDP landing string to above BOP.	35/11-B-12 AH

19-feb-19	Deepsea Atlantic	23:00	23:15	15	0	6,41	FLOW CHECK	100	Flowcheck well for 10 m. Well static.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	21:00	23:00	120	0	31,41	PULL TUBING ON LANDINGSTRING	100	Secure THRT with DFMA. Remove drilling bushings. Test C-Plate in rotary. Verify XT valve status according to table. Meanwhile perform test against failsafe to 150 bar 10 min. Close BSR Pressure up through kill line to 10 bar, continue pressure up against eRed valve plug to 140 bar. Held pressure for 12 min. Bleed back to 8 bar. Pumped in 14 L bleed back 37 l.. Wait 10 min with 8 bar. Comfirm eRed valve open when pressure dropped to 0 bar. Open BSR.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	20:30	21:00	30	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Pre-job meeting prior to pull TH and upper completion.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	18:15	20:30	135	0	31,2	RIG UP TUBING	100	P/U SLS and pull down AKER umbilical. Connect umbilical to SLS and test same	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	18:00	18:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after R/D WL. Prejob meeting prior to P/U SLS and pull down AKER umbilical.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	17:45	18:00	15	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	L/D toolstring and R/D WL equipment.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	17:30	17:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to L/D toolstring and R/D WL equipment.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	16:00	17:30	90	0	11,03	WL OPERATIONS	97	RIH with THIS on WL.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	15:30	16:00	30	0	11,03	WL OPERATIONS	97	POOH with THIS on WL due to AKER trouble with purge through PBT. Closed BSR. Line up for pressure down Kill line against closed BSR. Pressure up to 20 and 80 bar, no pressure reading on WOCS. Bleed off pressure, open BSR. Decideed to RIH with THIS.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	14:00	15:30	90	0	11,03	WL OPERATIONS	97	RIH with THIS on WL, wait for AKER opening PBT and purge 10 ltr from WOCS.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	13:30	14:00	30	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	R/U WL equipment. M/U THIS and toolstring.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	13:15	13:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to R/U and RIH with THIS on WL.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	13:00	13:15	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear DF.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	12:45	13:00	15	0	6,01	POOH CH	100	POOH with 5 7/8" DP string from 360 m.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	12:00	12:45	45	360	26,4	XMT TEST	100	Open up kill line and flowcheck against TT1. Open BSR and flowcheck, well static. Closed ACV1 and open XOV. Closed AMV from WOCS.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	11:25	12:00	35	360	26,4	XMT TEST	100	Open ACV2, equilize ACV1, open same and bleed off annulus. ROV closed ACV2. Pressure up to 10 bar, used 37 liter, E-red confirmed closed.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	10:25	11:25	60	360	26,4	XMT TEST	100	Observe for 1 hrs to gat e-valve to close.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	08:00	10:25	145	360	26,4	XMT TEST	100	Cement unit and pumprom prepare and mix meg/brine. Line up and displace Kill line to Meg/Brine mix. Pressure up to 10 bar against closed choke. Open ASV. Pressure up on annulus side, Confirmed ASV open, pumped 103 liter from 10 to 25 bar. Bleed down to 10 bar on choke, stop and monitoring pressure on choke, confirmed no gas. Pressured up to 10 bar for observation. Aker close ACV1 and XOV. Monitoring annulus pressure in ASPEN. Bleed down pressure to rig choke, close ACV2. Pressure up against BSR and E-red plug to 50 bar, hold for 12 minutes.Pumped in 95 liter. Observed pressure on choke decrease from 50 bar to 16 bar. E-red confirmed open. No communication with ASPEN. Pressure up from 16-30 bar: 77 liter, 30-40 bar: 158 liter, 60-100 bar 202 liter. Trouble solved with Comunication to ASPEN. Bleed down tubing pressure to 10 bar and monitoring pressure on choke.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	07:30	08:00	30	360	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting with new crew prior to continue operation open E-red and check for pressure below TH.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	05:45	07:30	105	360	26,4	XMT TEST	100	Aker to set valve status on HXT. Close BSR. Open upper and lower DHSV from WOCS. Open AMV from WOCS and ACV1, ACV2 from ROV.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	05:30	05:45	15	360	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to open e-Red.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	04:30	05:30	60	360	15,06	CONNECTOR TEST	100	Space out string 15 above BOP. Close shear ram and perform connector test 20/300 bar 5/10 min. 70ltr pumped an 69 in return.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	04:00	04:30	30	375	15,01	FUNCTION TEST BOP	100	Function test upper pipe ram, lower annular and upper annular.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	03:30	04:00	30	375	6	RIH CH	100	RIH with open end 5 7/8 DP" from 18 m to 175 m.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	01:30	03:30	120	18	5,02	DISPLACE WELL/RISER	100	Displace kill, choke, boost and riser to 1,12 Brine.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	01:15	01:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to displace well to 1,12 Sg Brine	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	01:00	01:15	15	0	15,07	FUNCTION TEST DIVERTER	100	RIH with one stand 5 7/8" DP. Close diverter and pump through over board lines.	3S/11-B-12 AH
19-feb-19	Deepsea Atlantic	00:00	01:00	60	0	14,17	RIG DOWN BOP RUNNING EQUIPMENT	100	Rig down riser RT cylinder on top drive. Install torque wrench.	3S/11-B-12 AH
18-feb-19	Deepsea Atlantic	22:30	00:00	90	0	14,17	RIG DOWN BOP RUNNING EQUIPMENT	100	Lay down diverter running tool and riser running tool. Remove spider and install rotary.	3S/11-B-12 AH
18-feb-19	Deepsea Atlantic	21:30	22:30	60	0	14,23	RUN, LP-RISER / DIVERTER	100	Pick up and install diverter.	3S/11-B-12 AH
18-feb-19	Deepsea Atlantic	20:50	21:30	40	380	14,31	HANDLE LANDING JOINT	100	Pull landing joint. Break out and lay down same.	3S/11-B-12 AH
18-feb-19	Deepsea Atlantic	19:30	20:50	80	380	14,3	LAND BOP	100	Lower riser string and stroke out Endline sylinder 2 m. Start compensator. Adjust umbillica sheave in moonpool and tension up Pod-Clamps. Rearranged landing loop before landing BOP. Land BOP @ 20.30 hrs. Lock well head connector. Perform 50 ton overpull test.	3S/11-B-12 AH
18-feb-19	Deepsea Atlantic	17:30	19:30	120	380	24,98	MOVE RIG TO WELL/OFF WELL	97	Move rig to well from safe zone starboard to well B-12	3S/11-B-12 AH
18-feb-19	Deepsea Atlantic	15:00	17:30	150	380	14,32	INST./DISC. LOOPS/SHEAVES FOR HYDR.	100	Prepare and skid pod sheaves to wellcenter make storm loop. Connect hoses to TJ. Meanwhile pressuretest K/C to 20/345bar 5/10min. Meanwhile remove balcony on SSGT. Skid to park position. Transport SUF from deck to moonpool trolley. Install umbilical, GW #6 on SUF	3S/11-B-12 AH
18-feb-19	Deepsea Atlantic	14:30	15:00	30	380	14,26	INSTALL KILL, CHOKE, BOOST & COND.	100	Release gooseneck assy from STR, disconnect hoses on STR. land TJ in STR	3S/11-B-12 AH
18-feb-19	Deepsea Atlantic	13:30	14:30	60	380	14,1	PREPARE & RIGGING IN MOONPOOL	100	Install STR to TJ.	3S/11-B-12 AH
18-feb-19	Deepsea Atlantic	13:15	13:30	15	365	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to install STR on cellerdeck.	3S/11-B-12 AH
18-feb-19	Deepsea Atlantic	12:15	13:15	60	365	14,16	TELESCOPIC JOINT	100	Pick up TJ. Grease lugs and fill water in K/C.	3S/11-B-12 AH
18-feb-19	Deepsea Atlantic	12:00	12:15	15	330	14,11	PRESSURE TEST K&C LINES	100	Pressuretest K/C to 20/345bar 5/10min.	3S/11-B-12 AH
18-feb-19	Deepsea Atlantic	10:40	12:00	80	340	14,11	PRESSURE TEST K&C LINES	100	Pressuretest K/C to 20/345bar 5/10min.	3S/11-B-12 AH
18-feb-19	Deepsea Atlantic	09:30	10:40	70	340	14,19	RUN BOP WITH BUOYANG RISER	100	Cont. RIS with slick 75ft riserjoints. install pod clamps on each connection.	3S/11-B-12 AH
18-feb-19	Deepsea Atlantic	09:15	09:30	15	260	14,11	PRESSURE TEST K&C LINES	100	Fill Kill and Choke line with seawater.	3S/11-B-12 AH
18-feb-19	Deepsea Atlantic	08:30	09:15	45	230	14,1	PREPARE & RIGGING IN MOONPOOL	100	Install suport wires between clamp on riserjoint no 9-10 and podwires on cellerdeck.	3S/11-B-12 AH
18-feb-19	Deepsea Atlantic	07:00	08:30	90	230	14,19	RUN BOP WITH BUOYANG RISER	100	RIS with slick 75ft riserjoints. install pod clamps on each connection.	3S/11-B-12 AH
18-feb-19	Deepsea Atlantic	04:45	07:00	135	127	14,19	RUN BOP WITH SLICK RISER	100	RIS with BOP through splash zone. Set in spider and install next riser joint, Cont RIS. Install umillical polar clamps on each connection.	3S/11-B-12 AH
18-feb-19	Deepsea Atlantic	03:30	04:45	75	0	14,12	PREPARE TO RUN BOP	100	Lift BOP and skid BOP trolley starboard. Install 2 x guidewires and RIS to 300 m. Prepare pod hoses for running BOP.	3S/11-B-12 AH
18-feb-19	Deepsea Atlantic	00:00	03:30	210	0	23,2	WOW SUB SEA EQUIPMENT	100	WOW. Meanwhile prepare for running BOP. Test Force equipment. Disconnect force cable. 1 sensor operative on Force equipment due to damage on rest of equipment.	3S/11-B-12 AH
17-feb-19	Deepsea Atlantic	23:00	00:00	60	0	25,1	ROV OPERATIONS	100	Pull debris cap on B-12. Install dust cap on B-13. Move rig to safe sone. Pull debris cap to surface. Meanwhile performed testing on Force equipment. Continue drop chcek on HR main and aux.	3S/11-B-12 AH
17-feb-19	Deepsea Atlantic	22:00	23:00	60	0	24,98	MOVE RIG TO WELL/OFF WELL	97	Move rig to B-12.	3S/11-B-12 AH
17-feb-19	Deepsea Atlantic	18:30	22:00	210	0	1	RIG UP AND TEAR DOWN.	100	Force technology to check and repair wellhead fatigue sensors on BOP. Meanwhile RIS with dust cap. Drop check on HR main and aux.	NO 3S/11 B-13 HT3
17-feb-19	Deepsea Atlantic	17:15	18:30	75	0	14,2	PULL BOP	100	Skid BOP trolly to WC and land BOP on same. Set down weight of BOP.	NO 3S/11 B-13 HT3
17-feb-19	Deepsea Atlantic	16:45	17:15	30	0	14,2	PULL BOP	100	Pull BOP through splash sone, secure same with BOP guide trolley.	NO 3S/11 B-13 HT3
17-feb-19	Deepsea Atlantic	16:15	16:45	30	58	14,1	PREPARE & RIGGING IN MOONPOOL	100	Prepare cellerdeck prior to pull BOP through splash sone.	NO 3S/11 B-13 HT3
17-feb-19	Deepsea Atlantic	15:00	16:15	75	58	14,2	PULL BOP WITH SLICK RISER	100	Pull BOP pick riser from 127 meters to 58 meters	NO 3S/11 B-13 HT3
17-feb-19	Deepsea Atlantic	13:10	15:00	110	127	14,2	PULL BOP WITH BUOYANG RISER	100	Continue pull BOP on boyant riser from 207 meters to 127 meters.	NO 3S/11 B-13 HT3
17-feb-19	Deepsea Atlantic	12:50	13:10	20	207	14,1	PREPARE & RIGGING IN MOONPOOL	100	Remove current stabilizing wire on riser joint.	NO 3S/11 B-13 HT3
17-feb-19	Deepsea Atlantic	12:00	12:50	50	207	14,2	PULL BOP WITH BUOYANG RISER	100	Continue pull BOP on boyant riser from 240 meters to 207 meters.	NO 3S/11 B-13 HT3
17-feb-19	Deepsea Atlantic	11:00	12:00	60	240	14,2	PULL BOP WITH BUOYANG RISER	100	Pull BOP with boyant riser from 333 meters to 240 meters.	NO 3S/11 B-13 HT3
17-feb-19	Deepsea Atlantic	10:45	11:00	15	333	14,29	RUN/PULL RISER PUP`S	100	L/d 40 ft riser pup joint	NO 3S/11 B-13 HT3
17-feb-19	Deepsea Atlantic	10:15	10:45	30	342	14,16	TELESCOPIC JOINT	100	L/d telescopic joint to RCWM and then to deck	NO 3S/11 B-13 HT3
17-feb-19	Deepsea Atlantic	09:45	10:15	30	375	14,31	HANDLE LANDING JOINT	100	L/d handling joint	NO 3S/11 B-13 HT3
17-feb-19	Deepsea Atlantic	09:30	09:45	15	375	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejob meeting prior to l/d handling joint, slip joint and pull BOP	NO 3S/11 B-13 HT3
17-feb-19	Deepsea Atlantic	07:15	09:30	135	375	14,15	PREPARE TO PULL BOP	100	Connect gooseneck assy to split tension ring. Open and split tension ring. Pull N-line and tension ring to park position.	NO 3S/11 B-13 HT3
17-feb-19	Deepsea Atlantic	07:00	07:15	15	375	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejob meeting with new crew prior to split tension ring and ggoseneck assy.	NO 3S/11 B-13 HT3
17-feb-19	Deepsea Atlantic	05:45	07:00	75	375	14,18	RIG UP BOP RUNNING EQUIPMENT	100	Install balcony on trolley after rig in safe zone. Rig up for disconnecting split tension ring.	NO 3S/11 B-13 HT3
17-feb-19	Deepsea Atlantic	05:30	05:45	15	375	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to rig up on cellardeck.	NO 3S/11 B-13 HT3
17-feb-19	Deepsea Atlantic	05:00	05:30	30	375	14,4	DISC. BOP	100	Disconnect BOP. Move rig 50 m safe sone. Deballast rig to 25 m draft.	NO 3S/11 B-13 HT3
17-feb-19	Deepsea Atlantic	02:30	05:00	150	0	14,24	PULL ,LP-RISER /DIVERTER	100	Pick up diverter RT and engage same to diverter. P/U diverter and set in spider. clean seals and put on protection. Disconnect and L/D diverter in RCWM. Install Riser running tool. P/U landingjoint and make up same. Collaps innerbarrel.	NO 3S/11 B-13 HT3
17-feb-19	Deepsea Atlantic	00:00	02:30	150	0	14,18	RIG UP BOP RUNNING EQUIPMENT	100	Remove torque wrench. Install pad eye sub in BX-Elevator. Remove master bushing and adapter ring. Pick up spider and install same in rotary. Start deballasting rig from 25 m draft to 23 m @ 02.30 hrs.	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	23:45	00:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to rig up BOP equipment.	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	23:15	23:45	30	0	6,01	POOH CH	100	POOH with jet sub from 383 m to RKB. Pick up doule on last std.	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	22:00	23:15	75	383	5,01	CIRCULATE HOLE CLEAN	100	Pump Hi-vis soap through kill, choke and boost. Displace with SW 1,03 SG. Line up and pump down string 8 m3 Hi-vis soap and diplace with 100 m3 SW.	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	21:45	22:00	15	370	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to pump soap and wash BOP/Riser	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	21:15	21:45	30	370	6	RIH CH	100	RIH with Aker Jet sub on 10 stand 5 7/8" DP from RKB to 383 m. Wash BOP and WH erea according to mud ing displacement plan, prior disconnect of BOP.	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	20:15	21:15	60	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Break out and lay down wirw line string. Rig down wire line equipment.	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	17:30	20:15	165	0	11,01	WIRE LINE LOGGING	97	RIH and log 20" casing for re-use. Perform prejob meeting prior to rig down wire line equipment and tool string.	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	17:00	17:30	30	0	41,01	WAIT ON 3.PART	97	Power shutdown on wireline winch. Check and repair.	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	16:00	17:00	60	0	11,01	WIRE LINE LOGGING	97	RIH and log 20" casing for re-use	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	14:45	16:00	75	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rig up WL equipment according to Odfjell Work Instruction. Pick up WL tool string and make up same.	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	14:30	14:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob prior to RIH with wirw line to log 20" casing.	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	14:00	14:30	30	0	6,11	LAY DOWN BHA	100	Rack back jar and magnets in derrick. Remove XO 6 5/8" to 5 7/8". Install L/S and L/D 17 1/2" skrape and bit to RCWM.	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	13:45	14:00	15	37	6,83	POOH with BHA	100	POOH with 5 7/8" HWDP from 365 m to 37 m.	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	13:15	13:45	30	365	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with 20" drift BHA, rotate out do to tight WH and annular.	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	12:15	13:15	60	370	6,01	POOH CH	100	POOH from 857 meter to 370 meter	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	12:00	12:15	15	857	6,41	FLOW CHECK	100	Perform flowcheck. Well static. Take up/ down weight according to DOP 101 ton up and 96 ton down.	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	11:00	12:00	60	857	6,07	RIH CH Reduced speed	100	RIH with cleanout BHA on 5 7/8" HWDP from 37 meters to 857 meters. Reduced speed due to assy scraping casing wall.	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	10:45	11:00	15	37	6,1	MAKE UP BHA	100	Make up and RIH with magnet assy to 37 meters.	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	10:15	10:45	30	10	6,1	MAKE UP BHA	100	Changed inserts in BX from 5 7/8" to 6 5/8". Pick up scrape assy from RCWM. Change back to 5 7/8" inserts in BX	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	10:00	10:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed prejob meeting prior to p/u cleanout BHA.	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	09:00	10:00	60	0	25,22	DROP's Inspection	100	Performed DROPS inspection on drilling equipment	NO 3S/11 B-13 HT3
16-feb-19	Deepsea Atlantic	08:30	09:00	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear.	NO 3S/11 B-13 HT3

16-feb-19	Deepsea Atlantic	07:30	08:30	60	0	6,01	POOH	100	POOH with cement stinger on S 7/8" DP from 857 m to 0 m. Slow trip because of trimming of rig after displacing well, , L/d cement diverter sub	NO 35/11 B-13 HT3
16-feb-19	Deepsea Atlantic	05:00	07:30	150	857	5,02	DISPLACE WELL/RISER	100	Emty trip tansk and clean with base oil. Emty trip tanks for base oil and fill TT with SW. Displace kill, choke and boost. Displase well accordig to displacement plan.	NO 35/11 B-13 HT3
16-feb-19	Deepsea Atlantic	03:30	05:00	90	857	5,01	CIRCULATE HOLE CLEAN	100	Insert sponge ball and start circulating 1X B/U and clean mud in return. @04:45 Clean mud in return and stop pumping. Perform prejob meeting for displacing from 04:50.	NO 35/11 B-13 HT3
16-feb-19	Deepsea Atlantic	02:00	03:30	90	982	13,02	PUMP CMT	100	Pump 14,4m³ spacer 1,65sg using rig pump's with 2500lpm. set 50 bar behind IBOP. @02:15 Start pumping 25m³ 1.95sg cmt with 7-800lpm. @03:00 close low torque valve on PIS. open bleed off on cmt unit and disconnect cmt hose. displace cmt with rig pumps. @03:15 Rack back cmt stand and POOH dry to teoretical TOP @862mMD.	NO 35/11 B-13 HT3
16-feb-19	Deepsea Atlantic	01:00	02:00	60	982	13	RIG UP AND DOWN CEMENT EQUIPMENT	100	Install CMT stand. rig up 10m+5m cmt hose from cmt stand to cmt line. Performe 100bar/5min line test.	NO 35/11 B-13 HT3
16-feb-19	Deepsea Atlantic	00:00	01:00	60	982	5	CIRCULATE AND CONDITION MUD	100	Rotating and circulating while RIH compensated inside 14" csg to kick off setting depth 1 std above plug. Meanwhile performe prejob meeting prior to cmt job.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	22:30	00:00	90	932	6	RIH CH	100	RIH from 50m to 932m on S 7/8" DP. Compansate through BOP. From 23:45 M/U TD to string, start compensating and RIH OH and enter 14" @940mMD to 1std above plug	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	22:00	22:30	30	50	6,1	MAKE UP BHA	100	From 22:00 to 22:15 Install X/O from 5" to S 7/8" and change inserts in BX to S 7/8". From 22:15 RIH with 5" diverter sub and one S 7/8" DP. Install S 7/8" autoslips.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	21:00	22:00	60	0	6,33	CHANGE HANDLING EQUIPMENT	100	Move casing tong from Main wellsenter to Aux wellsenter. from 21:45 install inner bowls and set 5" divertersub in manual slips.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	19:00	21:00	120	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Lay down spear assy. Build CMT stand in aux.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	18:15	19:00	45	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rigfloor.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	18:00	18:15	15	0	6,33	CHANGE HANDLING EQUIPMENT	100	Change to BX4.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	17:30	18:00	30	0	12,05	PULL CASING IN CASED HOLE	100	Pull and rack back one stand of 14" casing. L/D cut casing joint.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	17:00	17:30	30	30	6,33	CHANGE HANDLING EQUIPMENT	100	Change to BX3 elevators.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	16:30	17:00	30	30	12,05	PULL CASING IN CASED HOLE	100	Transport spearassy from main to aux.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	16:00	16:30	30	50	12,19	LAY DOWN CSG STANDS	100	Release spear. Install wire slings below dogcollar clamp. L/D cut casing joint with use of tugger to RCWM.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	15:45	16:00	15	50	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob prior to release spear.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	14:45	15:45	60	50	6,33	CHANGE HANDLING EQUIPMENT	100	Install FMS: Transport FMS from aux rotary to main rotary by use of Hydraracker due to Robot blocking normal tugger lifting route. Remove masterbushing and install FMS in rotary.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	14:30	14:45	15	50	12,11	RIG UP CASING/LINER EQUIPMENT	100	Remove slips and bushings. Pull 14" casing through rotary on spear assy . Install dog collar on cut casing joint.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	12:30	14:30	120	0	6,11	LAY DOWN BHA	100	Install 6 5/8"pupjoint on jar and L/D to RCWM. Install lifting subs on circ sub and powed section and L/D to RCWM. M/U dobbel 8" DC and rack back stand in derrick. Install XO 6 5/8" to S 7/8" and singel S 7/8" DP on ball drop sub. Install top drive to realese spear from 14" casing.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	12:15	12:30	15	92	6,33	CHANGE HANDLING EQUIPMENT	100	Change handling equipment to 6 5/8".	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	12:00	12:15	15	92	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob prior to handle spear BHA.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	11:50	12:00	10	92	6	RIH CH	100	Continue POOH with 14" spear/casing from 360 m to 92 m	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	11:40	11:50	10	360	6,74	COMPENSATE THROUGH BOP	100	Comp t/BOP with 14" spear/casing.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	11:30	11:40	10	414	6,41	FLOW CHECK	100	Flowcheck prior to pull bha through BOP. Well static	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	11:00	11:30	30	414	6,01	POOH CH	100	POOH with 14" casing on S 7/8" DP from 850 m to 414 m.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	10:50	11:00	10	850	6,04	PUMP SLUG	100	Pump 1,70 sg slug 5 m2. 1,1 m2 in displacement.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	10:40	10:50	10	850	6,41	FLOW CHECK	100	Flow check. Well static.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	09:50	10:40	50	889	6,23	ENGAGE TOP DRIVE AND LAND TOOLS	100	Engage top drive and land nogo in 14" cut with S ton. Engage spear, pull up to 20 ton OP and hold for 2 min. Pull up in steps to 44, 69 and 94 ton OP. Pull 14" casing free with 237 ton OP. Pull up and R/B stand, line up and burst disc with 193 bar with cementunit.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	09:25	09:50	25	875	6	RIH CH	100	Continue RIH with spear assy on S 7/8" DP from 414 m to 875 m.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	09:15	09:25	10	414	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with spear assy.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	08:55	09:15	20	360	6	RIH CH	100	RIH with spear assy on S 7/8" DP from 92 m to 360 m.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	06:05	08:55	170	92	6,1	MAKE UP BHA	100	Pick up spear assy, 2 X 8" DC joint, power section, circ sub, drilling jar 2 stand 8" DC and X-Over from 6 5/8" to XT-57. Empty TT.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	05:50	06:05	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rigfloor prior to next operation.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	04:40	05:50	70	0	6,73	POOH RISER	100	POOH, compensate throug BOP.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	04:20	04:40	20	430	12,13	SEAL ASSY / WEAR BUSHING	100	Record up/down 88/88ton weight. Activate compensator and land bore protector. set down 10 ton and confirm depth. shear out with 6 ton overpull.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	04:00	04:20	20	383	6,22	WASH DOWN	100	Activate compensator @350m and continue RIH. Start boosting riser and wash WH with 2000lpm prior to setting 18¾" WB	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	02:05	04:00	115	350	6,82	RIH with BHA	100	Make up string and RIH with 18¾" WB.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	01:55	02:05	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob prior to RIH with 18¾" WB	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	01:45	01:55	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief with crew after POOH with spear and 14" CSG.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	00:55	01:45	50	0	6,33	CHANGE HANDLING EQUIPMENT	100	Change from casing equipment to S 7/8" DP handling equipment. Remove FMS. Install masterbushing ang inner bowls. Change from BX-3 to BX-4 elevator.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	00:40	00:55	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rigfloor	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	00:25	00:40	15	0	12,05	PULL CASING IN CASED HOLE	100	L/D singles csg joint and 3,26m cut joint to RCWM.	NO 35/11 B-13 HT3
15-feb-19	Deepsea Atlantic	00:00	00:25	25	0	12,05	PULL CASING IN CASED HOLE	100	Pull and B/O 14" std. Rack std in derrick.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	22:30	00:00	90	0	12,05	PULL CASING IN CASED HOLE	100	Pull and B/O 14" std. Rack std in derrick.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	21:30	22:30	60	0	12,11	RIG UP CASING/LINER EQUIPMENT	100	Change handling equipment & elevator. rig up for running 14" casing.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	20:00	21:30	90	483	6,11	LAY DOWN BHA	100	Break out and lay down bumper sub, single DP. Remove inner bushing and master bushing. Pull spear and 14 Hanger slowly throug rotary. Install 14" FMS. Set 14" casing in FMS. Break out spear and lay down.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	19:45	20:00	15	501	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	prejob meeting prior to lay down 14" Hanger and spear assy.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	18:50	19:45	55	501	6,11	LAY DOWN BHA	100	POOH with 14" casing on S 7/8" HWDP from 360 m to spear is in rotary.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	18:35	18:50	15	885	6,41	FLOW CHECK	100	Flow check trhough choke. Well static. Open upper annular.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	18:20	18:35	15	885	6,23	ENGAGE TOP DRIVE AND LAND TOOLS	100	Engage top drive and compensate to land stop sub in top of 14" casing. Set down 5 ton and engage spear according to Baker. Pull 10 ton overpull to confirm latch. Close upper annular and line up choke through poor boy degasser. Pull free 14" casing with 62 ton overpull, and pull 1 m.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	17:15	18:20	65	360	6,1	MAKE UP BHA	100	P/U spearassy, Baker to set spear in catch, install bushings and slips. P/U singel S 7/8" DP and bumper sub assy. Continue RIH with spear assy on S 7/8" HWDP from 26 m to 360 m. Record up/down weight 88/86 ton.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	17:00	17:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejob meeting prior to pick up spear assy.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	15:15	17:00	105	0	6,15	CHECK OF HANDLING EQUIPMENT	100	Prepare Robot for service due to errors i software. Found Robot out of position due to install casing tong. Meanwhile remove scaffold from derrick.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	15:00	15:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held debrief meeting after pull sealassy.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	14:30	15:00	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rigfloor. Meanwhile flush kill/choke.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	13:55	14:30	35	0	6,11	LAY DOWN BHA	100	Remove slips and bushings, pull seal assy through rotary. Install bushings and slips, L/D MPT and seal assy, L/D Singel S 7/8" HWDP. Rack back 1 stand of S 7/8" DP, L/D swab cup BHA.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	13:30	13:55	25	49	6,01	POOH CH	100	POOH with seal assy from 365 m to 49 m.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	13:20	13:30	10	365	6,74	COMPENSATE THROUGH BOP	100	Comp t/BOP with seal assy.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	13:05	13:20	15	390	6,41	FLOW CHECK	100	Flow check. Well static.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	12:25	13:05	40	390	5	CIRCULATE AND CONDITION MUD	100	Pump 11 m2 baseoil, empty TT 1 to prepare for return of baseoil. Fill TT 2 with 1,38 sg OBM to refill riser. Open annular.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	12:15	12:25	10	390	6,41	FLOW CHECK	100	Flow check through choke. Well static.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	12:00	12:15	15	390	5	CIRCULATE AND CONDITION MUD	100	Start circulating with constant standpipe pressure trhough choke. 1000 lpm/8 bar. Max gas 4%.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	11:20	12:00	40	430	5	CIRCULATE AND CONDITION MUD	100	Start circulating with constant standpipe pressure trhough choke. 1000 lpm/8 bar. Max gas 4%.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	10:00	11:20	80	430	12,13	SEAL ASSY / WEAR BUSHING	100	Take up weight 132 ton. Space out MUT below annular, close annular w/open failsafe and choke. Pull 2 m up, 145 ton. Open annular and land MUT with 15 ton according to Aker. Close lower annular and reduce pressure. Pressure up DP to 100 bar. Pull up 1 m with closed annular and open choke, seal assembly realesed 145 ton. Close choke and observe for pressure build up. Pressure up to 195 bar to open circ sub. Pressure up until pressure increase on choke. Stop circulation and read off pressure on standpipe 7 bar, choke 30 bar.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	09:45	10:00	15	390	6,23	ENGAGE TOP DRIVE AND LAND TOOLS	100	Test Packoff according to Baker, 20 bar. Pressure Bleed off, stop pumping. Dropp 1 3/8" ball.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	09:35	09:45	10	390	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	09:15	09:35	20	365	6	RIH CH	100	RIH with MPT from 49 m to 365 m on S 7/8" DP.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	08:25	09:15	50	49	6,16	M/U Wired BHA	100	Remove bushings. P/U Dual Pack off BHA, install bushings and slips. RIH on 1 stand of S 7/8" DP. P/U and install MPT, Aker to check tool. Remove slips and bushings, RIH through rotary, install bushings and slips. P/U singel HWDP from RCWM.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	08:10	08:25	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrif after POOH with MUT/WB. Prejob prior to RIH with MPT.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	08:00	08:10	10	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rigfloor prior to RIH with MPT.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	07:25	08:00	35	0	6,17	L/D Wired BHA	100	Remove slips, bushings and wipers. Pull MUT/WB through, install bushings and slips. L/D WB and MUT to RCWM.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	06:45	07:25	40	20	6,08	POOH CH reduced speed	100	Cont POOH from 365m to 20m	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	06:35	06:45	10	383	5,06	JET AROUND WELLHEAD	100	Space out and wash WH area for 10min.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	06:25	06:35	10	400	6,08	POOH CH reduced speed	100	Pull 30 ton Overpull to release WB. Pull above BOP with MUT while compensating trough BOP.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	06:15	06:25	10	429	6,1	MAKE UP BHA	100	Cont. RIH on S 7/8" HWDP std to 429m. Tag WB and set down 10T	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	05:50	06:15	25	400	5,06	JET AROUND WELLHEAD	100	Connect TD to string. Wash with Jet Sub in WH area.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	04:45	05:50	65	380	6,1	MAKE UP BHA	100	P/U & install S 7/8" HWDP single from RCWM. Cont. RIH on S 7/8" HWDP std to 380m	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	04:35	04:45	10	35	6,33	CHANGE HANDLING EQUIPMENT	100	Install auto hydraslips.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	04:20	04:35	15	35	6,1	MAKE UP BHA	100	RIH with jet sub stand. P/U 14" MUT from deck. Remove innerbushings and RIH with MUT.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	04:15	04:20	5	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Perform safety and prejob meeting with all involved personnel.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	04:00	04:15	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor after trip.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	03:45	04:00	15	0	6,11	LAY DOWN BHA	100	Rack back last stand with DP. Inspect and clean cutter assy. Lay down same to deck.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	03:25	03:45	20	50	6,33	CHANGE HANDLING EQUIPMENT	100	Remove viper, plate and auto slips. Use manual slips on last connection.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	02:25	03:25	60	50	6,01	POOH CH	100	POOH from 889m to 50m	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	02:00	02:25	25	889	6,33	CHANGE HANDLING EQUIPMENT	100	Change slips due to problems setting slips.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	01:35	02:00	25	889	6,04	PUMP SLUG	100	Pump 4,5m³ 1.70Sg slug and wait for slug to set.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	01:25	01:35	10	889	6,41	FLOW CHECK	100	Stop circulation and flow check well for 10 min. Well Static.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	01:15	01:25	10	889	12,3	CUT CASING	100	Position cutter @885mMD. Cut casing according to Baker representativ. Monitor pressure for indication. Cut for 5min more after good indications.	NO 35/11 B-13 HT3

14-feb-19	Deepsea Atlantic	00:45	01:15	30	889	6,08	POOH CH reduced speed	100	POOH wet from 948m to 889m.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	00:35	00:45	10	948	6,41	FLOW CHECK	100	Stop circulation and flow check well for 10 min. Well Static.	NO 35/11 B-13 HT3
14-feb-19	Deepsea Atlantic	00:00	00:35	35	948	12,3	CUT CASING	100	Position cutter @940mMD. Cut casing according to Baker representativ. Monitor pressure for indication. Cut for 5min more after good indications.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	23:45	00:00	15	948	12,3	CUT CASING	100	M/U TD to string. Fill pipe with 1.38sg OBM. Position cutter @940mMD	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	23:00	23:45	45	932	6	RIH CH	100	RIH with 14" cutter BHA on S 7/8" DP from 390 m to 932 m.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	22:50	23:00	10	390	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with 14" cutter BHA.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	22:30	22:50	20	365	6	RIH CH	100	RIH with 14" cutter BHA on S 7/8" DP from 24 m to 365 m.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	22:15	22:30	15	24	6,1	MAKE UP BHA	100	Transfer 14" cutter assy from aux to main. P/U singel DP from RCWM. Install doper.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	22:00	22:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrif after POOH with EZSV running tool. Prejob prior to RIH with 14" cutter.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	21:45	22:00	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rigfloor prior to RIH with 14" cutter BHA.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	21:30	21:45	15	0	6,11	LAY DOWN BHA	100	L/D singel DP, remove springs from running tool, install protector and L/D running tool to RCWM.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	21:15	21:30	15	15	6,01	POOH CH	100	POOH with EZSV running tool from 365 m to 15 m.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	21:05	21:15	10	365	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with EZSV running tool.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	20:30	21:05	35	390	6,01	POOH CH	100	POOH with EZSV running tool from 980 m to 390 m.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	20:15	20:30	15	980	6,04	PUMP SLUG	100	Pump 5 m2 1,70 sg slug. Pitgain 1,1 m2.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	20:00	20:15	15	980	6,41	FLOW CHECK	100	Flow check. Well static.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	18:20	20:00	100	980	5,02	DISPLACE WELL/RISER	100	Line up and displase Kill/Choke and boost to 1,38 sg OBM. Line up and displace well to 1,38 sg OBM with 2500 lpm/40 bar SD RPM.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	18:05	18:20	15	980	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to displace well to 1,38 SG OBM.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	17:30	18:05	35	987	12,88	SET/RELASE MECH PLUGS	100	Record up/down weight: 93/89 ton. Break circulation and circulate with 800 LPM/11 bar while reciprocate string 5 m strokes across setting area. Position EZSV 2 setting depth(987 m top plug). Contact Halliburton support. Sat EZSV with 36 turn RH. Stop rotation. Pull 8 ton/ 18 ton OP, hold each step for 2 min. Pull RT free from EZSV with 27 ton OP. Pull RT above and tag EZSV with 5 ton.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	16:55	17:30	35	987	6,07	RIH CH Reduced speed	100	RIH with 14" EZSV plug with reduced speed from 390 m to 987 m.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	16:45	16:55	10	390	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with 14" EZSV plug.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	16:15	16:45	30	365	6,07	RIH CH Reduced speed	100	RIH with 14" EZSV plug with reduced speed from surface to 365 m.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	15:15	16:15	60	0	6,16	M/U Wired BHA	100	P/U singel from RCWM, install XO and EZSV running tool. Install 14 EZSV plug to running tool.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	15:00	15:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob prior to RIH with 14" EZSV plug	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	14:45	15:00	15	0	6,33	CHANGE HANDLING EQUIPMENT	100	Change handling equipment and install autodoper.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	14:15	14:45	30	0	25,22	DROP`s inspection	100	Perform Drops`s inspecton of TD,TB and TDRD before handling BHA.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	14:00	14:15	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and tidy RF. Preapare for next operation.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	13:35	14:00	25	25	6,11	LAY DOWN BHA	100	Transfer BHA over to Aux rig. Download data from ontrack.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	13:15	13:35	20	25	6,14	TEST MWD	100	Engage DDM and pump down string to test cutters, after BH instructions.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	13:00	13:15	15	25	6,33	CHANGE HANDLING EQUIPMENT	100	Remove auto slips, masterbushing and wipers.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	12:40	13:00	20	25	6,01	POOH CH	100	Cont POOH with S 7/8" DP from 450m-25m	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	12:30	12:40	10	450	6,41	FLOW CHECK	100	Flowcheck. Ok	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	12:00	12:30	30	450	6,01	POOH CH	100	POOH with S 7/8" DP from 1120m to 450m	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	11:45	12:00	15	1120	6,01	POOH CH	100	POOH with S 7/8" DP	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	11:30	11:45	15	1487	6,04	PUMP SLUG	100	Pump 5m3 1,70sgslug	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	11:15	11:30	15	1487	6,41	FLOW CHECK	100	Flow check. Ok Meanwhile install wiper in rotary and remove pipedoper.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	10:20	11:15	55	1487	15,05	LEAK-OFF / FIT TEST	100	Start XLOT #2 Pump with constant rate and injekted with 21bar. Pump 2000liter-20bar bleed of to 7bar 970liter in retur.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	09:00	10:20	80	1487	15,05	LEAK-OFF / FIT TEST	100	Space out and close annular. Line up and pump down kill&choke and down DP. Start XLOT Cycle #1 Pump 200liter 22bar Pumpand injekted total 1490liter 14bar stable pressure shut in for 30min. Open bleed of valve and flow back to 7bar. Close bleed of valve in 5 min, bleed of to 7 bar. Return volum: 570liter	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	07:15	09:00	105	1487	5	CIRCULATE AND CONDITION MUD	100	Circulate well 1BU. Condition mud according to Baker. Meanwhile perform line test 200bar.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	07:00	07:15	15	1487	6,41	FLOW CHECK	100	Flowcheck well. OK	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	06:45	07:00	15	1487	12,3	CUT CASING	100	Cut 14" casing acc to Baker. 1200 lpm/28 bar, 100 RPM.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	06:30	06:45	15	1487	6,07	RIH CH Reduced speed	100	Position cutter to cut @ 1483 m. Fill pipe.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	05:45	06:30	45	1450	6,07	RIH CH Reduced speed	100	Cont. RIH from 1009m to 1400m. Reduced speed due to cutter assy.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	05:25	05:45	20	1009	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after trip so far, meanwhile fill pipe and empty TT	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	04:20	05:25	65	1009	6,07	RIH CH Reduced speed	100	RIH with Casing cut BHA on S 7/8" DP from 20 m to 1009 m. Reduced speed due to cutter assy.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	03:40	04:20	40	20	6,1	MAKE UP BHA	100	RIH with Casing cut BHA from derrick, Baker rep connect cable.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	03:15	03:40	25	0	15	PRESS.TESTING OF CSG UNDER BOP TEST	100	Pressure test shear ram with cement unit to 20 bar/5 min, 200 bar/10 min. Meanwhile prejob meeting prior to RIH with 14" Casing cut #2.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	03:00	03:15	15	0	15,01	FUNCTION TEST BOP	100	Function test shear ram acoustic from bridge and from drillfloor panel.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	02:45	03:00	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rigfloor.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	02:00	02:45	45	0	6,83	POOH with BHA	100	POOH with 12 1/4" BHA. Rack back jar and assy 2. L/D Assy 1 to RCWM.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	01:50	02:00	10	36	6,01	POOH CH	100	POOH with 12 1/4" tag assy from 365 m to 36 m.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	01:40	01:50	10	365	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with 12 1/4" Tag assy. P/U singel from RCWM.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	00:30	01:40	70	400	6,01	POOH CH	100	POOH with 12 1/4" tag assy from 1500 m to 400 m.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	00:15	00:30	15	1500	6,04	PUMP SLUG	100	Pump 5 m2 1,70kg.	NO 35/11 B-13 HT3
13-feb-19	Deepsea Atlantic	00:00	00:15	15	1500	6,41	FLOW CHECK	100	Flow check. Well static.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	23:15	00:00	45	1500	5,01	CIRCULATE HOLE CLEAN	100	Circulate B/U with 3500 LPM/ 100 bar, 60 /7 KNM.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	22:30	23:15	45	1514	2,3	DRILL CEMENT	100	Drill to confirm firm cement with 3000 LPM/ 75 bar. 50RPM/ 5 KNM. Confirmed firm cement @ 1514 m, stop rotation and retag with 10 ton.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	22:10	22:30	20	1502	6,22	WASH DOWN	100	Fill pipe, break circulation and wash down from 1436 m to 1502 with 1000 LPM/ 20 bar, tag with 5 ton.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	21:50	22:10	20	1436	6	RIH CH	100	RIH with Tag cmt BHA on S 7/8" DP from 920 m to 1436 m.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	21:35	21:50	15	920	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after trip so far. Meanwhile empty TT and check on handling equipment.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	21:25	21:35	10	920	6	RIH CH	100	RIH with Tag cmt BHA on S 7/8" DP from 720 m to 920 m.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	21:15	21:25	10	720	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after trip so far. Meanwhile fill pipe.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	21:00	21:15	15	720	6	RIH CH	100	RIH with Tag cmt BHA on S 7/8" DP from 415 m to 720 m.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	20:45	21:00	15	415	6,74	COMPENSATE THROUGH BOP	100	L/D singel for space out. Compensate through BOP. P/U singel.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	20:30	20:45	15	365	6	RIH CH	100	RIH with Tag cmt BHA on S 7/8" DP from 35 m to 365 m.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	20:00	20:30	30	35	6,1	MAKE UP BHA	100	P/U Assy #1 from RCWM. Assy #2 from Drk.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	19:45	20:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to RIH with 12 1/4" BHA to tag top of cement.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	19:25	19:45	20	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear DF.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	19:20	19:25	5	0	6,11	LAY DOWN BHA	100	L/D singel S 7/8" DP to RCWM. R/B Jetsub stand.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	19:00	19:20	20	0	6,01	POOH CH	100	POOH with Jetsub on S 7/8" DP from 395 m.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	18:45	19:00	15	395	6,11	LAY DOWN BHA	100	L/D BOPITT in RCWM	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	18:00	18:45	45	395	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	POOH with BOPITT on S 7/8" DP from 383m to surface. Reduced speed due to use of mudbucket.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	13:15	18:00	285	775	15,11	PRESSURE TEST BOP	100	Pressure tested BOP to 20/345Bar-5/10min. With yellow POD. Meanwhile: Pressure tested Auto lbop/manual IBOP/ kellyhose. 20/345Bar-5/10min. Mount Banana sheave with umbilical in derrick. Maintenance on TD.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	12:40	13:15	35	775	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH with BOPITT on S 7/8" DP from surface to 383m (BOPITT depth). Reduced speed. Landed in WH.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	12:20	12:40	20	390	6,1	MAKE UP BHA	100	P/U BOPITT. Aker subsea inspected same. Removed bushings and guided through rotary.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	12:00	12:20	20	385	5,06	JET AROUND WELLHEAD	100	Continued Wash BOP and WH area wir with 3000lpm/30Bar and boost riser with 1000lpm. Reciprocated string with 15 Rpm up and down several times. Pumped total 4000strokes.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	11:40	12:00	20	385	5,06	JET AROUND WELLHEAD	100	Engage DDM. Wash BOP and WH area with 3000lpm/30Bar and boost riser with 1000lpm. Reciprocated string with 15 Rpm up and down several times. Pumped total 4000strokes.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	11:00	11:40	40	385	6	RIH CH	100	RIH with jetsub on S 7/8" DP from surface to 385m	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	10:45	11:00	15	0	6,33	CHANGE HANDLING EQUIPMENT	100	Change handling equipment to S 7/8" in slips and elevator.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	10:30	10:45	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rigfloor.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	10:20	10:30	10	0	6,11	LAY DOWN BHA	100	Inspect EZSV RT, and lay down same.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	09:25	10:20	55	4	6,01	POOH CH	100	POOH with 3 1/2" DP from 350m to 4m Reduced speed due to racking off 3 1/2" DP. Remove masterbushing and install wiper.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	09:00	09:25	25	350	6,33	CHANGE HANDLING EQUIPMENT	100	Change to 3 1/2" slips and 3 1/2 inserts in elevator. Remove XO.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	08:00	09:00	60	350	6,01	POOH CH	100	POOH with S 7/8" DP from 1495m to 350m	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	07:45	08:00	15	1495	6,04	PUMP SLUG	100	Pumped 5m3 1,70	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	07:30	07:45	15	1495	6,41	FLOW CHECK	100	Flow checked well static 10min. OK	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	06:15	07:30	75	1495	5,01	CIRCULATE HOLE CLEAN	100	Install 1 x sponge ball in string, circulate with 2500 LPM/108 bar. Total pumped 7800strokes.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	05:45	06:15	30	1495	6,08	POOH CH reduced speed	100	POOH to above cement plug, with reduced speed, from 1765 m to 1495m.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	04:30	05:45	75	1765	13,02	PUMP CMT	100	Pump 12,4 m^3 1,65 Sg spacer with 2500 LPM. Sat 50 bar behind KC on TD. Open lo-tourqe valve on cement stand. Mix and pump 21,5 m^3 1,93 Sg standard cement slurry with 750 LPM. Start mixing@ 05:00 hrs. Displace cement with 1,38 Sg WBM, 2500 LPM.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	03:45	04:30	45	1770	13	RIG UP AND DOWN CEMENT EQUIPMENT	100	R/B one stand, transfere cement stand from AUX WC, install cement stand. Posetion sting 5 meter above EZSV plug @ 1770 m (top plug). Connect cement hose. Perform linetest from cement unit against closed lo-tourge on cement stand to 100 bar/ 5 minutes.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	03:15	03:45	30	1770	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	M/U cement stand in AUX WC. Meanwhile circulate with 2500 LPM/100 bar, 50 RPM/5 KNM.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	03:00	03:15	15	1770	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to cement job.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	02:50	03:00	10	1770	5	CIRCULATE AND CONDITION MUD	100	Establish circulation 2500 LPM/100 bar, 50 RPM/5 KNM. Meanwhile M/U cementstand in AUX.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	02:10	02:50	40	1770	12,88	SET/RELASE MECH PLUGS	100	Connect TD. Fill string. Record up/down weight: 115/100 ton. Circulate with 800 LPM/27 bar, reciprocate across setting area 3 times. Stop pumping. Rotate 36 turn RH to set EZSV plug. Release setting tool, pull 8ton OP,18 ton OP, hold each step 2 minutes. Pull free with 23 ton OP. Run in and tag top of plug 1770 m with 5 ton.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	01:00	01:15	15	1000	8,01	MECHANICAL REPAIRS	0	Change dies in IR.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	01:00	02:10	70	1770	6,07	RIH CH Reduced speed	100	RIH with EZSV plug on S 7/8" DP from 1000 m to 1770 m . Runningspeed 0,5 m/s.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	00:45	01:00	15	1000	6,4	FILL PIPE	100	Fill pipe and break circulation.	NO 35/11 B-13 HT3
12-feb-19	Deepsea Atlantic	00:00	00:45	45	1000	6,07	RIH CH Reduced speed	100	RIH with EZSV plug on S 7/8" DP from 500 m to 1000 m . Runningspeed 0,5 m/s.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	23:45	00:00	15	500	6,4	FILL PIPE	100	Fill pipe and break circulation.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	23:20	23:45	25	500	6,07	RIH CH Reduced speed	100	RIH with EZSV plug on S 7/8" DP from 350 m to 500 m . Runningspeed 0,5 m/s.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	23:10	23:20	10	350	6,33	CHANGE HANDLING EQUIPMENT	100	Change to 5 7/8" handling equipment. Install XO.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	23:00	23:10	10	350	15,04	KICK DRILL, CHOKE DRILL	100	Kick drill with crew.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	22:30	23:00	30	350	6,07	RIH CH Reduced speed	100	RIH with EZSV plug on 3 1/2" DP to 350 m. Runningspeed 0,5 m/s.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	21:00	22:30	90	0	12,88	SET/RELASE MECH PLUGS	100	P/U EZSV running tool, install guide springs. Install EZSV to running tool.	NO 35/11 B-13 HT3

11-feb-19	Deepsea Atlantic	20:45	21:00	15	0	6,33	CHANGE HANDLING EQUIPMENT	100	Change to 3 1/2" handling equipment.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	20:30	20:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after trip OOH. Prejob prior to M/U EZSV plug to running tool.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	19:30	20:30	60	0	6,11	LAY DOWN BHA	100	Remove slips and innerbushing. POOH with Cut 14" BHA, connect cable to ontrack and download data. R/B BHA in derrick.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	19:05	19:30	25	25	6,01	POOH CH	100	POOH with 5 7/8" DP from 431 m to 25 m.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	18:50	19:05	15	431	6,41	FLOW CHECK	100	Flowcheck with BHA below BOP, well static.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	17:55	18:50	55	431	6,01	POOH CH	100	POOH with 5 7/8" DP from 1775m to 431m	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	17:30	17:55	25	1775	6,04	PUMP SLUG	100	Pump 1,70sg slug.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	17:15	17:30	15	1775	6,41	FLOW CHECK	100	Flow check. ok	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	16:30	17:15	45	1775	15,05	LEAK-OFF / FIT TEST	100	Start XLOT #2 Pump with constant rate to 350liter-53bar. Pump 1350liter-53bar bleed of to 8bar 727liter in retur.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	15:00	16:30	90	1775	15,05	LEAK-OFF / FIT TEST	100	Space out and close upper annualr. Start XLOT Cycle #1 Pump 650liter then leek off from 117bar to 50. Pump total 1650liter, stable pressure 51bar, stop pump and shut in for 30min. Pressure go from 51bar to 48bar. Open bleed of valve and flow back to 10bar. Close bleed of valve in 5 min, bleed of to 10 bar. Return volum: 623liter	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	14:15	15:00	45	1775	15,05	LEAK-OFF / FIT TEST	100	Flush kill/choke with 1,38sg WBM. Line up to pump down kill/choke and DP, verify line up against closed valves.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	12:50	14:15	85	1782	5,01	CIRCULATE HOLE CLEAN	100	Circulate the well 1BU clean 2000lpm-80bar.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	12:40	12:50	10	1782	6,41	FLOW CHECK	100	P/U 4m, flow check well. Ok	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	12:00	12:40	40	1786	12,3	CUT CASING	100	Record up/down weight 122ton/104ton Position cutter to cut @1782m MD. Monitor pressure closely for indication of cut. 800lpm-21bar 1000lpm-28bar 1200lpm-37bar 1400lpm-46bar 8 klNm free tourq Start to cut 12:25. 120RPM 1200lpm-37bar 10-55 trq, increase slowly to 55bar after 2min pressure drop to 27bar. Cut for 5 min.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	11:35	12:00	25	1736	6,4	FILL PIPE	100	Filled pipe. Slow filling, TD not connected due to Cutter in BHA.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	11:15	11:35	20	1736	6	RIH CH	100	Continue RIH with cutter on 5 7/8" from 1500m to 1736m	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	10:30	11:15	45	1500	6,4	FILL PIPE	100	Filled pipe. Slow filling, TD not connected due to Cutter in BHA.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	09:15	10:30	75	1500	6	RIH CH	100	Continue RIH with cutter on 5 7/8" from 772m to 1500m	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	08:55	09:15	20	772	6,4	FILL PIPE	100	Filled pipe. Slow filling, TD not connected due to Cutter in BHA.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	07:25	08:55	90	772	6	RIH CH	100	RIH with cutter on 5 7/8" DP from 24m to 772m	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	04:45	07:25	160	24	6,1	MAKE UP BHA	100	Change out taper mill from 12 3/4" to 12 1/4". Remove 5 7/8" pup joint from cutter assy and XO from ontrak do to different threads then the drawing from Baker. M/U Assy 1, and ontrak. Connect to on-track and set battery back ON. RIH from surface to 24m	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	04:30	04:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to RIH with Cut 14" Csg BHA. Meanwhile pressure up well against cmt plug and shear ram to 100 bar/5 min/ 538 liter.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	04:20	04:30	10	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	R/d WL equipment.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	03:45	04:20	35	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	POOH and L/D WL toolstring.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	03:30	03:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to R/D WL toolstring and WL equipment.	NO 35/11 B-13 HT3
11-feb-19	Deepsea Atlantic	00:00	03:30	210	0	11,01	WIRE LINE LOGGING	97	RIH with wireline toolstring and log formation bonding og GC outside 14" csg. Meanwhile test standpipemanifold to 20/345 bar for 5/10 min. Test #1 to test #7.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	19:15	00:00	285	0	11,03	WL OPERATIONS	97	RIH with wireline toolstring and log formation bonding og GC outside 14" csg.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	18:15	19:15	60	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Install padeyesub in elevator and rig WL equipment according to Oilfjell work instruction. P/U WL tool string and make up same.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	18:00	18:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	97	Prejobmeeting prior to rig up wireline.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	17:45	18:00	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and tidy driffloor.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	17:10	17:45	35	0	6,1	MAKE UP BHA	100	Rack back top of BHA in derrick, L/D bit in RCWM.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	17:00	17:10	10	36	6,33	CHANGE HANDLING EQUIPMENT	100	Remove wiper from masterbushing.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	16:40	17:00	20	36	6,1	MAKE UP BHA	100	POOH with Scrape on 5 7/8" HWDP.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	16:30	16:40	10	406	6,74	COMPENSATE THROUGH BOP	100	L/D 5 7/8" DP sgl and comp through BOP with BHA	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	16:10	16:30	20	416	6,08	POOH CH reduced speed	100	Cont. POOH with Scrape on 5 7/8" DP. POOH with reduced speed due to risk of oval casing.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	16:00	16:10	10	870	6,41	FLOW CHECK	100	Flow check well.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	15:00	16:00	60	870	6,08	POOH CH reduced speed	100	POOH with Scrape on 5 7/8" DP. RIH with reduced speed due to risk of oval casing.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	14:25	15:00	35	1980	6,04	PUMP SLUG	100	Pump slug 5m³ 1,70sg. Displaced slug with 2 m³ 1,38sg WBM	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	14:10	14:25	15	1980	6,41	FLOW CHECK	100	Flow check well. Ok. Meanwhile install wiper in rotary.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	13:15	14:10	55	2000	5,01	CIRCULATE HOLE CLEAN	100	Record up/down weight 140ton/114ton Go down and tag casing @ 2000m MD set down 5ton. Establish circulation and increase to 4000lpm/118bar 60RPM/8-10kNm. Total pumped 1 B/U 8900STK reciprocate string while pumping.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	13:00	13:15	15	1970	6,4	FILL PIPE	100	Fill pipe with 1,38sg WBM	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	12:00	13:00	60	1970	6,07	RIH CH Reduced speed	100	Cont RIH with Scrape on 5 7/8" DP. RIH with reduced speed due to risk of oval casing.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	11:20	12:00	40	1070	6	RIH CH	100	Cont RIH with Scrape on 5 7/8" DP	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	11:15	11:20	5	416	6,3	P/U DRILLSTRING	100	P/U 1 sgl 5 7/8" DP from RCWM.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	11:05	11:15	10	407	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	08:15	11:05	170	370	6,1	MAKE UP BHA	100	P/U and M/U cleanout/drift assys from deck. Baker representative present on DF while handling BHA. Continue in on 5 7/8" HWDP	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	08:00	08:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after transfering CSG tong - Prejob before BHA.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	07:15	08:00	45	0	12,11	RIG UP CASING/LINER EQUIPMENT	100	Transfer OWS casing tong from Main to Aux with HR.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	07:00	07:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to transfer OWS casing tong from Main to Aux with HR.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	06:45	07:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after POOH with 10 3/4" casing. Meanwhile P/U assy 1,2,3 and 4 for scrape and drift run from basket on riser deck to RCWM.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	06:30	06:45	15	0	6,15	CHECK OF HANDLING EQUIPMENT	100	Check of handling equipment after POOH with 10 3/4" casing.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	06:10	06:30	20	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rigfloor.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	05:50	06:10	20	0	12,13	SEAL ASSY / WEAR BUSHING	100	POOH with wash std, and rack back in derrick.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	05:00	05:50	50	30	12,13	SEAL ASSY / WEAR BUSHING	100	POOH with MUT from 430 to 30m. L/D MUT to RCWM.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	04:45	05:00	15	430	12,13	SEAL ASSY / WEAR BUSHING	100	RIH and land WB in WH. Set down 10t. Pull up and shear-out @ 9t OP. Re land to verify WB are locked.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	04:15	04:45	30	491	5,01	CIRCULATE HOLE CLEAN	100	Wash WH area with 2500lpm- 25bar. Roost riser with 1500lpm.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	03:45	04:15	30	360	12,13	SEAL ASSY / WEAR BUSHING	100	RIH w/ WB on 5 7/8"HWDP from 30m to 360m.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	03:15	03:45	30	30	12,13	SEAL ASSY / WEAR BUSHING	100	Pick up wash std, MUT and WB. Aker to check and install same.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	03:00	03:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after POOH with 10 3/4" casing. Prejob prior to RIH with 14" WB.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	02:30	03:00	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rigfloor prior to RIH with 14" WB.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	02:05	02:30	25	0	12,12	RIG DOWN CASING/LINER EQUIPMENT	100	L/D 10 3/4" cut-of singel to RCWM. Remove FMS, change elevator from BX3 to BX4, and L/D to RCWM.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	00:30	02:05	95	0	12,05	PULL CASING IN CASED HOLE	100	POOH with 10 3/4" tie-back from 950 m to surface.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	00:15	00:30	15	950	6,06	FILL TT. Meanwhile rearange stand in derrick.	100	Fill TT. Meanwhile rearange stand in derrick.	NO 35/11 B-13 HT3
10-feb-19	Deepsea Atlantic	00:00	00:15	15	950	12,05	PULL CASING IN CASED HOLE	100	POOH with 10 3/4" tie-back from 1285 m to 950 m.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	22:45	00:00	75	1285	12,05	PULL CASING IN CASED HOLE	100	POOH with 10 3/4" tie-back from 1660 m to 1285 m.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	22:00	22:45	45	1660	12,11	RIG UP CASING/LINER EQUIPMENT	100	Install FMS.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	21:30	22:00	30	1660	12,14	LAND/ PULL CSG ON LANDING STRING	100	B/O and L/D 10 3/4" Csg hanger to RCWM.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	21:10	21:30	20	1668	12,11	RIG UP CASING/LINER EQUIPMENT	100	Change to BX-3. Install 10 3/4" inserts. P/U FMS from RCWM.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	20:35	21:10	35	1668	12,14	LAND/ PULL CSG ON LANDING STRING	100	POOH and L/D bumper assy, L/D singel 5 7/8" DP. Pull up 10 3/4" hanger, release spear from hanger and L/D to RCWM.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	20:20	20:35	15	1680	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting for L/D spear Assy. R/U Csg equipment and L/D 10 3/4" Csg hanger.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	19:30	20:20	50	1680	12,14	LAND/ PULL CSG ON LANDING STRING	100	POOH with 10 3/4" tie-back on 5 7/8" HWDP from 2033 m to 1688 m.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	18:45	19:30	45	2033	12,14	LAND/ PULL CSG ON LANDING STRING	100	Took weight at UAP, work throught. Max 20 ton OP.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	17:15	18:45	90	390	12,14	LAND/ PULL CSG ON LANDING STRING	100	Took weights prior to engage Spear, 86T-Up and Down. Run in and land stopsub on top off casing, sat down 5T @383,7m (stopsub depth) Pull casing free with 202T HKL. Pulled up to 376m took weight, tried several times not able to pass. Hooked in LPR. Optimise rig over center. Started to circulate/lubricate down Kill and choke line with 600lpm/48ar. After several attempts we managed to slide through.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	16:30	17:15	45	390	6,82	RIH with BHA	100	RIH with Spear assy. On 5 7/8"HWDP from 27m to 390m	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	16:00	16:30	30	27	6,1	MAKE UP BHA	100	P/U spear, BH inspected same and set spear in catch. P/U sgl DP for spaceout and P/U Bumper sub. Made up same. RIH from surface to 27m	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	15:45	16:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to RIH with Spear assy.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	15:30	15:45	15	0	12,11	RIG UP CASING/LINER EQUIPMENT	100	Lift up and prepare manual slips in main prior to handling hanger in rotary.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	15:00	15:30	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rigfloor after wet trip. Prior to RIH with Spear.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	14:30	15:00	30	0	12,13	SEAL ASSY / WEAR BUSHING	100	L/D MPT and Pack Off assy.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	14:14	14:30	16	60	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to handle MPT/Seal assy/ Pack off and L/D same to deck.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	12:30	14:14	104	60	12,13	SEAL ASSY / WEAR BUSHING	100	POOH with MPT from 383m to 60m Reduced speed due to fullbore tool. And use off Mud bucket.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	12:00	12:30	30	383	12,13	SEAL ASSY / WEAR BUSHING	100	RIH with MPT from 60m to 383m. Engaged TD put 100Bar Down string, run in and sat down 10 ton. Pulled up, no overpull seen. Reduced speed due to fullbore tool.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	11:30	12:00	30	60	12,13	SEAL ASSY / WEAR BUSHING	100	Aker dropped 2" Ball in string. Engage TD and pump down string to verify tool is in upper position, and "catch" ring is in outer position.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	10:45	11:30	45	60	12,13	SEAL ASSY / WEAR BUSHING	100	Inspected MPT no seal assy latched on MPT. wait on further instruction. Decided to re-run MPT.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	09:45	10:45	60	60	12,13	SEAL ASSY / WEAR BUSHING	100	POOH with Spear and MPT. from 430m to 60m reduced speed due to fullbore tool and seal assembly latched on.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	09:30	09:45	15	430	6,41	FLOW CHECK	100	Flowchecked well 10min static.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	04:15	09:30	315	430	12,13	SEAL ASSY / WEAR BUSHING	100	Decided to pull tool joint on MPT below LAP and pressure up to 100 bar down string to check for comunication, observed pressur increase on chokemanifold. Establish circulation with constant BHP, circulate with 0- 400 LPM. Several pack off tendency. Circulated total 40m3 up annulus. Displaced Kill/Choke lines to DW with cementer. Open annular and U-tubed back Kill and choke lines through Choke manifold. Start circulated, Brought up pumps in steps. 200lpm/20Bar-300lpm/30Bar.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	02:30	04:15	105	430	12,13	SEAL ASSY / WEAR BUSHING	100	Start establish circulation with constant BHP. Pressure increase in drillstring, no pressure increase on chokemanifold. Bleed off on chokemanifold to check for comunication, no pressure decrase on DP pressure. Pressure on chokemanifold drop to 10 bar, no increase in pressure when close choke. Discuss further operation with senior personel.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	02:15	02:30	15	430	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to circulate out baseoil behind tie-back casing.	NO 35/11 B-13 HT3

09-feb-19	Deepsea Atlantic	00:45	02:15	90	430	12,13	SEAL ASSY / WEAR BUSHING	100	Connect TD. Compensate through BOP and position cup tester in 10 3/4" tie-back. Test packoff, pressure up 25 bar down string, monitor TT for return. Bleed off pressure. Drop 1 3/8" ball for closing circ sub. . Install last stand. Connect TD. Record up/ down weight prior to close LAP and perform striptest. Upweight: 114 ton, down weight: 84 ton. Close LAP and reduced closing pressure to 900 PSI. Record up weight with closed LAP: 141 ton. Open annular. Land MPT, sat down landingstring weight. Close LAP with reduced pressure, 900 PSI. Sat 100 bar down string. Test annular with cementunit, pressure up through chokeline to 10 bar to verify closed annular. Bleed off pressure. Pull/strip Seal assembly 1 meter, no OP. Observed pressure build up to 70 bar on choke manifold. Pressure up to open circulation sub, burst @ 178 bar.	NO 35/11 B-13 HT3
09-feb-19	Deepsea Atlantic	00:00	00:45	45	367	12,13	SEAL ASSY / WEAR BUSHING	100	RIH with Swab cup BHA and MPT on S 7/8" HWDP from 60 m to 367 m.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	23:10	00:00	50	60	12,13	SEAL ASSY / WEAR BUSHING	100	P/U swab cup BHA, RIH with one stand S 7/8" DP. P/U MPT from RCWM. Aker check and remove protection. Remove and install innerbushing and slips to run MPT through rotary. P/U singel S 7/8" HWDP from RCWM. Grease singel prior to strip through annular.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	23:00	23:10	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after pull WB. Prejob meeting prior to RIH and Pull SA.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	22:50	23:00	10	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear DF.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	22:10	22:50	40	0	12,13	SEAL ASSY / WEAR BUSHING	100	L/D singel S 7/8" HWDP on RCWM. Remove and install innerbushing and slips to pull MUT with WB through rotary. Disconnect WB from MUT. L/D MUT and WB to RCWM. R/B Jetsub stand.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	21:45	22:10	25	67	12,13	SEAL ASSY / WEAR BUSHING	100	POOH with Jetsub and 10 3/4" WB on S 7/8" HWDP from 360 m to 67 m.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	21:30	21:45	15	360	5,06	JET AROUND WELLHEAD	100	Connect TD. Wash WH area with 3000 LPM/ 32 bar.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	21:25	21:30	5	390	12,13	SEAL ASSY / WEAR BUSHING	100	Pull 10 3/4" WB above BOP, R/B stand.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	21:05	21:25	20	430	12,13	SEAL ASSY / WEAR BUSHING	100	Install last stand, connect TD. Record up/down weight: 88/87 ton. RIH and land MUT in WB with 10 ton. Pull free 10 3/4" WB with 18 ton OP.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	20:40	21:05	25	391	5,06	JET AROUND WELLHEAD	100	Connect TD and Wash WH area with 3000 LPM/ 32 bar. Wash for 10 minutes.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	20:20	20:40	20	363	12,13	SEAL ASSY / WEAR BUSHING	100	RIH with Jetsub and MUT on S 7/8" HWDP from 67 m to 363 m.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	19:30	20:20	50	67	12,13	SEAL ASSY / WEAR BUSHING	100	RIH with Jetsub stand. P/U MUT from RCWM. Aker prepare and check MUT. Remove and install innerbushing and slips to run MUT through rotary. P/U singel S 7/8" HWDP from RCWM.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	19:15	19:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to RIH and pull WB.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	19:00	19:15	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Remove skate on RCWM. Remove padeye sub.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	17:30	19:00	90	0	12,11	RIG UP CASING/LINER EQUIPMENT	100	Install padeyesub in elevator, and rig up for install casing tang. Lift up with top drive and hold tension with tugger. Install casing tong. Install C:ag tong in Main through forward/RCWM due to Robot on DF.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	17:00	17:30	30	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and clear rigfloor. Drops inspection. Lubricated equipment. Meanwhile lift up transferskid and OWS casing tang to drillfloor.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	16:40	17:00	20	0	6,11	LAY DOWN BHA	100	Remove wiper from rotary. L/D C:ag cutter assy, BH inspected knifes prior laying down.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	16:00	16:40	40	17	6,83	POOH with BHA	100	Continue POOH with cutter assy on S 7/8" HWDP from 370m to 17m	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	15:30	16:00	30	370	6,01	POOH CH	100	Continue POOH with cutter assy on S 7/8" DP from 775m to 370m	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	15:00	15:30	30	775	25,22	DROP's inspection	100	Drops check. Prior Handling BHA in red sone.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	14:45	15:00	15	775	6,76	WELL CONTROL DRILLS	100	Kick Drill with Robot. Some issues to land sub in stickup. Not able to spin in/make up KC in stick up both in auto/manual mode.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	14:30	14:45	15	775	6,41	FLOW CHECK	100	Flow check well for 10 min. Well static	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	13:50	14:30	40	775	6,01	POOH CH	100	Continue POOH with cutter assy on S 7/8" DP from 1470m to 775m	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	13:30	13:50	20	1470	6,41	FLOW CHECK	100	Flowchecked well due to unstable Trip tank. Added defoamer. 10min static.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	12:50	13:30	40	1470	6,01	POOH CH	100	POOH with cutter assy on S 7/8" DP. from 2000 to 1470m	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	12:40	12:50	10	2000	6,04	PUMP SLUG	100	Pump 5m3 1,68sg slug	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	12:25	12:40	15	2000	6,41	FLOW CHECK	100	Flow check well for 10 min. Well static	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	12:00	12:25	25	2000	12,3	CUT CASING	100	Cut 10 3/4" casing @2000m according to Baker Hughes. 1200rpm-120RPM.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	11:45	12:00	15	2000	12,3	CUT CASING	100	Cut 10 3/4" casing @2000m according to Baker Hughes. 1200rpm-120RPM.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	11:30	11:45	15	2000	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to cut casing.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	10:30	11:30	60	2055	6,22	WASH DOWN	100	Take up weight 137 ton down weight 107 ton, rotation tourq 11 kNm and 120 ton Wrash down with 500lpm-17bar and no rotation tag @2047m Dress off cement to hard cement. 2500lpm 40RPM and tag with 10 ton @2055 Reference pressure pkt. 1000lpm-24bar 8000lpm-20bar 600lpm-18 400lpm15 Rack back 1 std drop 2" ball. Record up/down weight 144/109ton	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	10:20	10:30	10	2015	6,4	FILL PIPE	100	Fill string with 1,38sg WBM	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	08:00	10:20	140	2020	6	RIH CH	100	L/D one sgl in RCWM and cont. RIH with cutting assy on S 7/8" DP from 404m to 2015m	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	07:55	08:00	5	406	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP with BHA	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	07:45	07:55	10	378	6	RIH CH	100	RIH with cutting assy on S 7/8" DP from 365m to378m	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	06:10	07:45	95	365	6,1	MAKE UP BHA	100	P/U and Make up Persus cutting assy 1 and 2. RIH with S 7/8" HWDP, L/D dobbel to RCWM.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	06:00	06:10	10	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear rigfloor.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	05:50	06:00	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob prior to RIH with Persus.Cutting assy to tag cement and cut 10 3/4" tie-back csg.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	05:40	05:50	10	0	6,11	LAY DOWN BHA	100	L/D singel S 7/8" DP to RCWM, and rack back jetsub stand.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	05:25	05:40	15	50	6,01	POOH CH	100	POOH with jetsub on S 7/8" DP from 383 m to 50 m.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	04:50	05:25	35	383	5,06	JET AROUND WELLHEAD	100	Rack back 1 stand S 7/8" DP, connect top drive and wash WH and BOP with 3000 lpm 34 bar. 2 passes.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	04:00	04:50	50	430	15,11	PRESSURE TEST BOP	100	Verify space out and Close Upper annular, low pressure test 20 bar ok. Open upper annular, close lower annular, low pressure test 20 bar ok. Open lower annular and close upper pipe ram, low pressure test 20 bar ok. Open upper pipe ram and close middle pipe ram, low pressure test 20 bar ok. Open middle pipe ram.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	03:45	04:00	15	430	6	RIH CH	100	RIH with 1 stand S 7/8" DP and space out to close BOP.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	03:00	03:45	45	383	5,06	JET AROUND WELLHEAD	100	Connect top drive and jet BOP and WH with 3000 LPM / 34 bar, 10 RPM, 4 passes. Boost riser.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	02:20	03:00	40	360	6	RIH CH	100	RIH with jetsub on S 7/8" DP from 50 m to 360 m.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	02:10	02:20	10	50	6,1	MAKE UP BHA	100	RIH with jetsub on S 7/8" DP, P/U singel from RCWM.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	02:00	02:10	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob prior to RIH with jetsub, wash and low pressure test BOP. Meanwhile close shear ram and open again.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	01:10	02:00	50	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rig down wire line toolstring.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	01:00	01:10	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob prior to rig down wire line toolstring.	NO 35/11 B-13 HT3
08-feb-19	Deepsea Atlantic	00:00	01:00	60	0	11,01	WIRE LINE LOGGING	97	Cont. RIH with logging string acc to Deepwell/Slb. POOH with wireline.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	19:00	00:00	300	0	11,01	WIRE LINE LOGGING	97	Cont. RIH with logging string acc to Deepwell/Slb. 480 m depth @ midnight. Table top discussing release and pull seal assy.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	17:30	19:00	90	0	11,01	WIRE LINE LOGGING	97	Cont. RIH with logging string acc to Deepwell/Slb	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	15:00	17:30	150	0	11,01	WIRE LINE LOGGING	97	Mechanical repairs on wireline winch due to broken guide to wireline.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	12:30	15:00	150	0	11,01	WIRE LINE LOGGING	97	RIH with logging string to 100m. Activate compensator. Pull back wire and adjust depth measurements on wireline unit. RIH with logging string acc to Deepwell/Slb	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	12:00	12:30	30	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Cont rig up wireline equipment. P/U WL tool string with tugger and make up same. Connect cable according to schlumberger. Meanwhile troubleshoot and inspect TT valves. Revers circulate and flush kill/choke lines for clamps.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	10:45	12:00	75	0	11,02	RIG UP OR DOWN FOR WIRELINE	97	Rig up wireline equipment. P/U WL tool string with tugger and make up same. Connect cable according to schlumberger.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	10:30	10:45	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to run wirelogging.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	10:10	10:30	20	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and clear drillfloor.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	09:55	10:10	15	0	6,11	LAY DOWN BHA	100	L/D EZSV running tool in RCWM.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	09:45	09:55	10	4	6,33	CHANGE HANDLING EQUIPMENT	100	Remove wiper from rotary.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	09:10	09:45	35	4	6,01	POOH CH	100	POOH with EZSV running tool, on 3 1/2" DP from 351m to 4m	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	09:00	09:10	10	351	6,33	CHANGE HANDLING EQUIPMENT	100	B/U and L/D XO. Detect drift in XO.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	08:50	09:00	10	351	6,01	POOH CH	100	Rack back 1 std 5 7/8" DP	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	08:30	08:50	20	351	6,33	CHANGE HANDLING EQUIPMENT	100	Change slips in rotary to 3 1/2" and Install 3 1/2" wiper.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	06:30	08:30	120	351	6,01	POOH CH	100	POOH with 10 3/4" EZSV R/T on S 7/8" DP from 2018 m to 351 m.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	06:00	06:30	30	2018	6,04	PUMP SLUG	100	Pump 6 m^3 1,78 Sg Slug. Fill triptank.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	05:45	06:00	15	2018	6,41	FLOW CHECK	100	Flowcheck, well static.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	05:00	05:45	45	2018	5,03	TREATING WELL	100	Open up valves on triptank system, due to plastic from tubing clamps. Found a lot of plastic. Meanwhile circulate with 2000 LPM/ 90 bar.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	04:00	05:00	60	2018	5,03	TREATING WELL	100	Circulate with 3000 LPM/ 150 bar and weight up to 1.38 Sg WBM. Pumped one round circulation. Meanwhile troubleshoot on valves on triptank system, due to plastic from tubing clamps. Found a lot of plastic.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	03:30	04:00	30	2018	6,41	FLOW CHECK	100	Open lower Annular and perform flowcheck, well static.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	03:20	03:30	10	2018	6,41	FLOW CHECK	100	Flow check well through choke. Well static.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	03:00	03:20	20	2018	5	CIRCULATE AND CONDITION MUD	100	Stop pumping with constant BHP, monitor pressure on chokemanifold. Bleed of pressure.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	02:00	03:00	60	2018	5	CIRCULATE AND CONDITION MUD	100	Establish circulation with constant BHP. Circulate B/U through chokemanifold with 1300 LPM/ S2 bar, observed no gas indications when B/U. Mudweight readings on shaker varied from 1,24 Sg to 1,34 Sg.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	00:30	02:00	90	2018	5	CIRCULATE AND CONDITION MUD	100	Space out and close lower Annular. Line up and check for pressure through chokeline,pressure stabilized at 5 bar. Bleed of pressure, closed choke and monitor pressure, stabilized at 5 bar. Bleed of pressure, same pressure increase on chokemanifold.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	00:15	00:30	15	2018	6,41	FLOW CHECK	100	Flow check prior to pump slug. Meanwhile install wiper below rotary. Observed Gain in triptank.	NO 35/11 B-13 HT3
07-feb-19	Deepsea Atlantic	00:00	00:15	15	2018	5,01	CIRCULATE HOLE CLEAN	100	Circulate hole clean above cement plug with 3015 LPM/151 bar. 30 RPM/ 5 KNM. Total pumped 7500 strokes.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	23:00	00:00	60	2018	5,01	CIRCULATE HOLE CLEAN	100	Install sponge ball and circulate hole clean over cementplug with 3015 LPM/151 bar. Pull slowly from 2045m to 2018m.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	22:15	23:00	45	2045	6,01	POOH CH	100	Pump out off hole with S 7/8" DP.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	22:00	22:15	15	2295	6,31	L/D DRILLSTRING	100	Brake down and transfer cement std to Aux.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	21:00	22:00	60	2295	13,02	PUMP CMT	100	Start mix cement 12,75m3 1,92sg @21.00 displace 200 liter with water. Close low tourq and displace cement with 1,38sg WBM 1242 stk. Catch up cement with 2500lpm 30RPM	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	20:45	21:00	15	2295	13,02	PUMP CMT	100	Pump 10,5 m^3 1,65sg spacer with rig pumps 1500lpm.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	20:30	20:45	15	2295	13	RIG UP AND DOWN CEMENT EQUIPMENT	100	Connect cement hose to cmt std. Pressuretest surface lines to 100bar/5min	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	20:20	20:30	10	2289	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior cement job.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	19:45	20:20	35	2289	13	RIG UP AND DOWN CEMENT EQUIPMENT	100	Rack back 1 std. Handel cement std from Aux to Main. Engage top drive.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	18:15	19:45	90	2289	5,02	DISPLACE WELL/RISER	100	Displace Well with 1,38 sg WBM, pumped 4000 lpm, 183 bar, 50 rpm.	NO 35/11 B-13 HT3

06-feb-19	Deepsea Atlantic	18:00	18:15	15	2289	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Held prejob meeting prior to displace Well to 1,38 Sg WBM,	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	17:15	18:00	45	2300	12,88	SET/RELEASE MECH PLUGS	100	Engage topdrive. Took weights Up/Down 135T/108T, Broke circulation with 800ltr/16Bar Reciprocated string up and down across setting depth. Set plug according to halliburton instructions, and support from Baker fishing. Pulled free from plug with 23 T. Runned in and tagged plug with 15 T.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	13:30	17:15	225	2280	6,07	RIH CH Reduced speed	100	RIH on 5 7/8" DP f/350m t/2280m.Reduced speed 0,33 m/s.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	13:20	13:30	10	389	6,74	COMPENSATE THROUGH BOP	100	Compensate through BOP,with EZSV B plug .	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	12:50	13:20	30	350	6,33	CHANGE HANDLING EQUIPMENT	100	Change handlingequipment t/5 7/8". Use Robot. on X/O.Nogo.Install doper.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	12:00	12:50	50	350	6,07	RIH CH Reduced speed	100	RIH on 3 1/2" DP t/ 350m.Reduced speed 0,33 m/s.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	11:00	12:00	60	0	6,1	MAKE UP BHA	100	Installed EZSV B plug to RT.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	10:45	11:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob prior to install EZSV B plug	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	10:30	12:00	90	0	12,12	RIG DOWN CASING/LINER EQUIPMENT	100	casing tong	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	10:00	10:30	30	0	25,22	DROP's Inspection	100	Drops inspection	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	09:30	10:45	75	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drillfloor. Meanwhile removed csg tong to riser deck.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	08:40	09:30	50	0	6,11	LAY DOWN BHA	100	L/D jar, magnets and junk mill in co-opertaion with BH Fisher.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	08:00	08:40	40	16	6,83	POOH with BHA	100	POOH with drift BHA on 5 7/8" HWDP T/16m.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	07:30	08:00	30	349	6,01	POOH CH	100	POOH with drift BHA on 5 7/8" DP T/386m MD. Compensated junk mill through BHA.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	07:20	07:30	10	800	6,41	FLOW CHECK	100	Flow checked well against TT. Well static	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	05:30	07:20	110	800	6,01	POOH CH	100	POOH with drift run on 5 7/8" DP T/ 800m with reduced speed.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	05:15	05:30	15	2280	6,41	FLOW CHECK	100	Line well on TT, Flow checked well 10min static.OK.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	04:00	05:15	75	2280	5,01	CIRCULATE HOLE CLEAN	100	Circulated and reciprocated string with. 3500lpm/105Bar-100Rpm/12-14kNm. Boost kill and choke with 1000lpm. 1,8 X Bottoms up. alot off plastic junk on shakers.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	03:35	04:00	25	2280	6,01	POOH CH	100	increase in HKL weight and volume increased in TT when we started POOH. Up to 20T overpull.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	03:30	03:35	5	2333	15,04	KICK DRILL, CHOKE DRILL	100	Kick drill with crew. 45s	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	03:20	03:30	10	2333	6,41	FLOW CHECK	100	Flow check well prior to POOH. 10 min stable.	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	00:45	03:20	155	2333	6,07	RIH CH Reduced speed	100	Observed restrictions @2200 worked string up and down to pass, max 15T. Not able to pass 2303m engage DDM, worked string down with 400lpm 6bar 60rpm 10-15kNm rotation weight 124T. When reducing flow from 800lpm to 400lpm, WOB reduced by 10 T. Worked down to 2333m	NO 35/11 B-13 HT3
06-feb-19	Deepsea Atlantic	00:00	00:45	45	2200	6,07	RIH CH Reduced speed	100	Continue RIH with drift run on 5 7/8" DP with reduced speed. RIH with landing mode. Used only TT1.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	22:30	00:00	90	2240	6,07	RIH CH Reduced speed	100	Continue RIH with drift run on 5 7/8" DP with reduced speed. Use only TT1. Activate landing mode @2000m	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	22:15	22:30	15	1580	6,4	FILL PIPE	100	Fill pipe and emty TT	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	21:20	22:15	55	1580	6,07	RIH CH Reduced speed	100	Continue RIH with drift run on 5 7/8" DP with reduced speed. Use only TT1.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	21:10	21:20	10	940	6,07	RIH CH Reduced speed	100	Troubleshoot on TT valve due to clamps in flowline. Valued to RIH with only TT1 due to clamps in TT system.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	20:15	21:10	55	940	6,07	RIH CH Reduced speed	100	RIH with drift run on 5 7/8" DP with reduced speed.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	20:00	20:15	15	424	6,33	CHANGE HANDLING EQUIPMENT	100	Install pipedoper and auto slips.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	19:30	20:00	30	424	6,11	LAY DOWN BHA	100	POOH with MUT and L/D in RCWM according to Aker. Aker inspect MUT befor L/D.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	19:15	19:30	15	439	6,33	CHANGE HANDLING EQUIPMENT	100	Remove slips and bowls in rotary prior to pull out MUT	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	19:00	19:15	15	439	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to L/D MUT	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	18:30	19:00	30	514	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	POOH with MUT from 820m to 439m. Restricted speed due to full bore tool and junk in hole.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	18:00	18:30	30	820	12,13	SEAL ASSY / WEAR BUSHING	100	Recorded Up weight 98 ton/Down weight 95 ton and installed 10 3/4" WB according to Aker proc.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	17:15	18:00	45	780	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	RIH with 9 3/8" mill/MUT on 5 7/8" DP from/440m to/780m. Reduced speed due to junk in hole.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	16:50	17:15	25	440	6,1	MAKE UP BHA	100	P/U & installed MUT/WB from RCWM.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	16:10	16:50	40	424	6,11	LAY DOWN BHA	100	Brake out 1 std 5 7/8" DP, B/O XOS's and 16" Jetsub, L/O SGL to RCWM.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	15:00	16:10	70	439	6,75	TRIPPING RISER WITH FULL BORE TOOLS	100	POOH with 9 3/8" mill/16" jetsub on 5 7/8" DP from/795m to/439m. Reduced speed due to junk in hole.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	14:20	15:00	40	795	5,01	CIRCULATE HOLE CLEAN	100	Connect TD and tagged WH, started to reciprocated string while circ 1 btms up with 3000 l/m- 37bar. Circ with 1000 l/m on kill and choke line.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	13:55	14:20	25	795	6,07	RIH CH Reduced speed	100	RIH with 9 3/8" mill/16" jetsub on 5 7/8" DP from/439m to/795m. Reduced speed due to junk in hole.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	12:25	13:00	35	386	5,01	CIRCULATE HOLE CLEAN	100	Circulated hole with	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	12:25	13:55	90	439	6,1	MAKE UP BHA	100	Make up 1 std 5 7/8" DP, installed XOS`s and 16" Jetsub, P/U SGL from RCWM.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	12:15	12:25	10	386	6,74	COMPENSATE THROUGH BOP	100	Compensated 3 3/8" mill through BOP.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	12:00	12:15	15	349	6,82	RIH with BHA	100	RIH with 9 3/8" mill BHA on 5 7/8" HWDP F/127m T/349m MD.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	11:45	12:00	15	127	6,82	RIH with BHA	100	RIH with clean BHA on 5 7/8" HWDP T/127m.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	11:00	11:45	45	16	6,1	MAKE UP BHA	100	M/U 9 7/8" junk mill assy according to BH instructions.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	10:45	11:00	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed pre job meeting prior to M/U BHA	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	10:30	10:45	15	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared rigfloor.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	09:00	10:30	90	0	6,11	LAY DOWN BHA	100	POOH with BOP Clean BHA. Cleaned magnets for swarf debries 4,8kg. B/O and L/D Jetting tool and magnet assy according to BH Fisher instructions. R/B wash stand in derrick.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	08:30	09:00	30	64	6,01	POOH CH	100	POOH with BOP clean BHA on 5 7/8" DP T 64m. Boosted riser with 1000lpm through K/C while POOH. Meanwhile performed prejob meeting with crew before handle BHA.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	07:00	08:30	90	420	5,01	CIRCULATE HOLE CLEAN	100	Continued circulate/wash BOP with 3000lpm/29bar. Boosted riser with 1000lpm through Kill/Choke lines. Reverse flushed TT-line through MB to Flowline and emptied TT`s.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	05:30	07:00	90	431	5,01	CIRCULATE HOLE CLEAN	100	Establish circ with 3000lpm/30bar. Boost riser with 1000lmp through Kill/choke line. Parts from control-line clamps in return on shaker.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	04:30	05:30	60	431	15,01	FUNCTION TEST BOP	100	Space out and close LAP stripp dp to verify toolJnt. Function test LPR, MPR, UPR.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	03:45	04:30	45	431	5,06	JET AROUND WELLHEAD	100	Wash BOP with jetting tool. Washed BOP with 3000lpm/33 Bar- 10Rpm/0,5kNm. Boosted Kill/choke with 1000lpm. Reciprocated up and down 6 Passes.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	03:15	03:45	30	431	6,07	RIH CH Reduced speed	100	RIH With BOP jetting tool from 64m to 431m Bullnose depth. Took up and down weights 77 Ton/77 Ton Free torque @ 10Rpm 0,5 kNm. Landed jetting tool in WH @ 383m with 5Ton.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	02:30	03:15	45	64	6,1	MAKE UP BHA	100	Run in 1x stand with jetsub/bullnose. P/U BOP jetting tool and magnets. P/U 1 sgl 5 7/8" DP. From surface to 64m.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	02:15	02:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to P/U BHA and RIH with clean out run.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	02:00	02:15	15	0	25,22	DROP's Inspection	100	Drops inspection and greased on top drive in Main.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	01:35	02:00	25	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Clean and tidy drillfloor.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	01:30	01:35	5	0	12,12	RIG DOWN CASING/LINER EQUIPMENT	100	Rig down casing slips and change inserts in elevator.	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	01:20	01:30	10	0	31,1	PULL TUBING	100	POOH and L/D 5 1/2" tubing cut in RCWM	NO 35/11 B-13 HT3
05-feb-19	Deepsea Atlantic	00:00	01:20	80	0	31,1	PULL TUBING	100	Continued pull 5 1/2" tubing.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	23:15	00:00	45	470	31,1	PULL TUBING	100	Continued pull 5 1/2" tubing.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	22:15	23:15	60	570	31,1	PULL TUBING	100	Observed tangle on controll line. Cut and remove slack control line and splice same. Pull up gas lif valve and set im rotary.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	21:45	22:15	30	570	31,1	PULL TUBING	100	Continued pull 5 1/2" tubing. Remove straps in elevator and cont. pull out controll-line with reel.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	19:30	21:45	135	700	31,1	PULL TUBING	100	Continued pull 5 1/2" tubing. Control-line partly followed with strap in elevator.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	19:15	19:30	15	855	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting with new crew prior to continue operation.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	18:05	19:15	70	855	31,1	PULL TUBING	100	Continued pull 5 1/2" tubing. Control-line partly followed when POOH. Compensated GLV through BOP. Evaluate further operation.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	12:00	18:05	365	907	31,1	PULL TUBING	100	Pulled 5 1/2" tubing according to tally F/1973m T/907m MD. Observed 15ton OP @ 907m bit depth with GLV 7m below WHD.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	11:45	12:00	15	1973	31,1	PULL TUBING	100	Continued pulling 5 1/2" tubing according to tally. Removed clamps/control-lines and RB stands in derrick.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	10:45	11:45	60	2010	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting and SJA prior to POOH with 5 1/2" Tubing and gage controll line.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	09:30	10:45	75	2010	31,1	PULL TUBING	100	Continued pulling 5 1/2" tubing according to tally. Removed clamps/control-lines and RB stands in derrick.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	08:00	09:30	90	2040	31,1	PULL TUBING	100	L/D Upper/Lower DHSV, ASV and sngl 5 1/2" jnts to RCWM. 3 plastic clamps removed from connections. Used tugger and wire clamp for securing control-line.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	07:15	08:00	45	2120	31,1	PULL TUBING	100	POOH with 5 1/2" tubing until upper DHSV in RKB.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	07:00	07:15	15	2770	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting with crew before POOH with 5 1/2" tubing.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	06:00	07:00	60	2770	31,1	PULL TUBING	100	POOH with Tubing T/2776m. Spool 2X controll lines in on drum. remove clamps on every connection.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	03:45	06:00	135	2776	31,1	PULL TUBING	100	Control lines slipping through clamps, decided to rig up sheave in DRK and use reel on sack store roof.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	03:15	03:45	30	2776	6,33	CHANGE HANDLING EQUIPMENT	100	Due to clamps stop in the guide in FMS slips. Remove FMS slips and install vippe slips in rotary. Rig up for pull CL trough rotary.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	03:00	03:15	15	2776	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Perform prejobmeeting prior to secure and pull up controll line.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	02:30	03:00	30	2776	31,1	PULL TUBING	100	Start pulling tubing, then observed control lines drop synchronous. Attach control line to tugger, and try to pull up. Nogo.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	02:15	02:30	15	2276	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to POOH with 5 1/2" Tubing.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	01:15	02:15	60	2276	6,33	CHANGE HANDLING EQUIPMENT	100	Changed to 5 1/2" csg inserts in elevator, maked up swedge and Kellycock ready on Drill floor. removed master bushing installed FMS.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	01:00	01:15	15	2276	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and clear rigfloor prior to change handling equipment and POOH with Tubing.	NO 35/11 B-13 HT3
04-feb-19	Deepsea Atlantic	00:00	01:00	60	2276	31,1	PULL TUBING	100	Continue L/D Spear. BH inspected spear assy, secured spear to Tubing with straps. Removed x-over and pup from spear assy on RCWM. Checked inside tubing for radio active sources, with geiger teller.	NO 35/11 B-13 HT3
03-feb-19	Deepsea Atlantic	23:35	00:00	25	2276	31,1	PULL TUBING	100	L/D spear assy. Secured spear to tubing with straps.	NO 35/11 B-13 HT3
03-feb-19	Deepsea Atlantic	23:30	23:35	5	2303	12,11	RIG UP CASING/LINER EQUIPMENT	100	Change handling equipment to 5 1/2"	NO 35/11 B-13 HT3
03-feb-19	Deepsea Atlantic	22:15	23:30	75	2303	31,41	PULL TUBING ON LANDINGSTRING	100	Install NC 50 XO and 5 7/8 LS in spear assy. Pull 5 1/2" tubing, cut and remove control lines, clamps. Set in slips.	NO 35/11 B-13 HT3
03-feb-19	Deepsea Atlantic	22:00	22:15	15	2303	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting prior to lay down spear, and rig up for pulling 5 1/2" tubing.	NO 35/11 B-13 HT3
03-feb-19	Deepsea Atlantic	21:45	22:00	15	2303	6,33	CHANGE HANDLING EQUIPMENT	100	Change slips and elevtor to 5". and Lay down bumpersub.	NO 35/11 B-13 HT3
03-feb-19	Deepsea Atlantic	21:30	21:45	15	2313	31,41	PULL TUBING ON LANDINGSTRING	100	Continue POOH 5 1/2" tubing on 5 7/8" HWDP from 2444m to 2303m	NO 35/11 B-13 HT3
03-feb-19	Deepsea Atlantic	20:30	21:30	60	2435	31,41	PULL TUBING ON LANDINGSTRING	100	Closed Diverter, reduced pressure to 450Psi. Stripped out to ASV teoretical 2m above WH datum. Increased pressure 1500psi. Observed starboard ventline for 10min. OK. Opened Diverter and lined well on TT. Start to pump down string, pressure increased to 308ar with no return. Pulled up to 375m ASV depth, got return and circulated with 300ltr.	NO 35/11 B-13 HT3
03-feb-19	Deepsea Atlantic	17:10	20:30	200	2444	31,41	PULL TUBING ON LANDINGSTRING	100	Pulled 5 1/2" tubing on 5 7/8" HWDP from 2660m to 2444m according to amendment plan to DOP 050.	NO 35/11 B-13 HT3

03-feb-19	Deepsea Atlantic	16:20	17:10	50	382	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed pre job meeting with involved personnel prior to continue with amendment plan for DOP 050.	NO 35/11 B-13 HT3
03-feb-19	Deepsea Atlantic	12:45	16:20	215	382	31,41	PULL TUBING ON LANDINGSTRING	100	Circulated with 1 SPM allowing pressure to slowly increase from 60 to 80 BARS. Stopped pump and allowed pressure to decrease to 60 BAR. Continued to pressure up with same parameters and same pressures.	NO 35/11 B-13 HT3
03-feb-19	Deepsea Atlantic	12:00	12:45	45	382	31,41	PULL TUBING ON LANDINGSTRING	100	Pressured up against ASV to 20/30/40/60 and 80 BAR. Pressure bled through and allowed pressure to decrease 20 BAR. Performed functiontest of diverter closing sequenze.	NO 35/11 B-13 HT3
03-feb-19	Deepsea Atlantic	10:30	12:00	90	0	31,41	PULL TUBING ON LANDINGSTRING	100	Pressured up against ASV to 20/30/40/60 and 80 BAR. Pressure bled through and allowed pressure to decrease 20 BAR	NO 35/11 B-13 HT3
03-feb-19	Deepsea Atlantic	10:00	10:30	30	0	31,41	PULL TUBING ON LANDINGSTRING	100	Pulled up and closed Annular with 1500PSI. Try to circulate through cut @ 2660m	NO 35/11 B-13 HT3
03-feb-19	Deepsea Atlantic	00:00	10:00	600	0	31,41	PULL TUBING ON LANDINGSTRING	95	Discuss further operation. Wait on instructions.	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	22:30	00:00	90	2660	31,41	PULL TUBING ON LANDINGSTRING	100	Discuss further operation. Wait on instructions.	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	19:15	22:30	195	2660	31,41	PULL TUBING ON LANDINGSTRING	100	Attempt to release spear, No GO. Worked up and down from 5-20T. With and without torque up to 6kNm.	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	17:15	19:15	120	2660	31,41	PULL TUBING ON LANDINGSTRING	100	Reduced Annular pressure 650PSI and slided string up and down 3 times from 379m to 383m upweight 143T down weight 110T. Increased Annular pressure and pumped up in steps to 140bar/80T hookload, no return. Reduced Annular pressure 650PSI slided string 5 times up down increased Annular pressure and pumped up again to 140bar.	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	15:00	17:15	135	2660	31,41	PULL TUBING ON LANDINGSTRING	100	Discussed further operations.	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	14:40	15:00	20	2660	31,41	PULL TUBING ON LANDINGSTRING	100	Pressured up string in steps of 20bar to max 100bar. No indication of circulation.	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	13:40	14:40	60	2660	31,41	PULL TUBING ON LANDINGSTRING	100	Waited for the elements on ASV to retract	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	13:30	13:40	10	2660	31,41	PULL TUBING ON LANDINGSTRING	100	Closed upper annular, opened lower annular and slided up 1,8m with 142ton upweight.	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	12:00	13:30	90	2660	31,41	PULL TUBING ON LANDINGSTRING	100	Discussed further operations.	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	10:40	12:00	80	2660	31,41	PULL TUBING ON LANDINGSTRING	100	Pumped down string and increased STP pressure in steps T/100bar. No return on TT observed. Bled down pressure and discussed further operation.	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	09:00	10:40	100	2660	31,41	PULL TUBING ON LANDINGSTRING	100	Bled down pressure on choke manifold and discussed further operation.	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	08:30	09:00	30	2660	31,41	PULL TUBING ON LANDINGSTRING	100	Started circulation and STP pressure increaced to steady 8 bar with no pressure build up on choke. Stop MP´s and observe. Started circulation and increaced STP pressure to 15bar, recorded 10 bar on choke.	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	08:00	08:30	30	2660	31,41	PULL TUBING ON LANDINGSTRING	100	Bled down pressure and lined up for reverse circulation through choke manifold.	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	07:00	08:00	60	2660	31,41	PULL TUBING ON LANDINGSTRING	100	STP pressure steady 8Bbar with pumps off. Discuss further operation.	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	06:30	07:00	30	383	31,41	PULL TUBING ON LANDINGSTRING	100	Increase STP pressure slowly to 100 bar, discuss further operation.	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	02:30	06:30	240	383	31,41	PULL TUBING ON LANDINGSTRING	100	Lined up to pump down string and up choke line. After pumped 300l observed SPP increased to 30 bar. No returns to TT. Discuss further operation.	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	01:40	02:30	50	383	31,41	PULL TUBING ON LANDINGSTRING	100	Picked up and confirmed engagement on spear. Closed LAP. Pumped down Kill-line and pressured up to 20Bar, verified lineup by pressure drop. Continued pressure up to 20Bar against LAP, hold pressure OK. Bleeded down pressure. Pulled casing up 2m with 140t Hookload. Observed pressure build up on choke to 14Bar, bleeded down through choke. Closed in again, pressure increased to 7Bar stable.	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	01:20	01:40	20	383	15,01	FUNCTION TEST BOP	100	Function tested BOP. Operated UAP and LAP with Blue pod from Drillers panel and yellow pod from Toolpusher panel.	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	00:50	01:20	30	383	31,1	PULL TUBING	100	Took weights UP/Down- 88T/82T. Circulated with 150lpm/4bar RIH slowly, observed pressure peak. Stopped pump, continued RIH and engage spear @383,9m MD sat down 7t.	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	00:40	00:50	10	366	5	CIRCULATE AND CONDITION MUD	100	Take circulation parameters according to Baker 200lpm-5bar	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	00:20	00:40	20	360	6,1	MAKE UP BHA	100	Cont. RIH with spear on S 7/8" HWDP	NO 35/11 B-13 HT3
02-feb-19	Deepsea Atlantic	00:00	00:20	20	260	8,01	MECHANICAL REPAIRS	0	Engage and secure guidering in derrick. Due to guidering to kelly disconnected.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	23:50	00:00	10	260	8,01	MECHANICAL REPAIRS	0	Engage and secure guidering in derrick. Due to guidering to kelly disconnected from wire.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	23:00	23:50	50	260	6,1	MAKE UP BHA	100	P/U 5 7/8" HWDP sngl from RCWM and MU same. RIH with 5 7/8" HWDP down to 260m.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	22:45	23:00	15	27	15,07	FUNCTION TEST DIVERTER	100	Functions test diverter.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	22:30	22:45	15	27	6,33	CHANGE HANDLING EQUIPMENT	100	Installed 5 7/8" autoslips and auto doper.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	21:30	22:30	60	27	6,1	MAKE UP BHA	100	P/U spear assy from RCWM Broke off pup and bumber sub. Maked up 5" DP sgl for spaceout. Maked up with pup and bumber sub again. Lubricated 5" sgl. RIH from surface to 27m	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	21:15	21:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting prior to P/U spear assy from RCWM	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	19:30	21:15	105	0	15,01	FUNCTION TEST BOP	100	Functions test BSR with Acustic and ROV.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	19:00	19:30	30	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejobmeeting with new crew on board.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	18:50	19:00	10	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Debrief after handling OWS tong and trolly main WC	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	17:30	18:50	80	0	12,11	RIG UP CASING/LINER EQUIPMENT	100	Installed OWS trolly in Main WC. Deck landed skidding flake on CW rails and loaded samewith OWS tong. Mounted OWS tong in Main WC.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	17:15	17:30	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Prejob meeting with involved personnel before P/U csg tong and belonging OWS trolly.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	16:50	17:15	25	0	38,01	CLEAN AND CLEAR RIGFLOOR	100	Cleaned and cleared drillfloor.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	15:45	16:50	65	0	6,33	CHANGE HANDLING EQUIPMENT	100	Placed mud funnel, installed master and bushings in WC. Mounted torque wrench on TD. Meanwhile diplaced boost/kill/choke and Riser to 1,12sg Brine in co-operation with MI.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	14:45	15:45	60	0	14,17	RIG DOWN BOP RUNNING EQUIPMENT	100	Installed bird table RCWM and L/D Riser spider to Riser deck.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	13:45	14:45	60	0	14,23	RUN, LP-RISER / DIVERTER	100	Innstall diverter.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	12:45	13:45	60	0	14,17	RIG DOWN BOP RUNNING EQUIPMENT	100	Change to grippers on RGC and prepare to lift diverter to risercatwalk.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	12:15	12:45	30	0	14,17	RIG DOWN BOP RUNNING EQUIPMENT	100	L/D RT	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	12:00	12:15	15	0	14,17	RIG DOWN BOP RUNNING EQUIPMENT	100	L/D landingjnt to deck.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	10:00	12:00	120	0	8,02	ELECTRICAL REPAIRS	0	Troubleshoot RGC.Change encoder on RGC.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	09:30	10:00	30	0	34,1	ACCEPTANCE TEST	100	Performed pressure test #4 and #6 of choke manifold to 20/1034 BAR. Part of ATP postponed due to need for BOP to be installed. Main well barried of due to high pressure in lines.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	08:30	09:30	60	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in other well center. Installed mousehole in AUX, no axcess to work in main according to SOOB.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	07:15	08:30	75	0	14,17	RIG DOWN BOP RUNNING EQUIPMENT	100	Rigged down RHRT and changed to 6 5/8 inserts in elevator. Meanwhile performed connector test 20/200 Bar 5/60 min. Volume pumped: 970 ltr. Return volume: 842 ltr.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	07:00	07:15	15	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Performed prejob meeting with dayshift prior to rig down BOP running equipment. Rigdraft 25m @ 07 00. Meanwhile performed connector test 20/200 Bar 5/60 min.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	05:30	06:00	30	0	14,31	HANDLE LANDING JOINT	100	Broke out and laid down Landing joint to RCWM. Meanwhile ballast rig to drillingdraft 25 m. Released Guide wires and pulled same to surface.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	05:30	07:00	90	0	14,31	HANDLE LANDING JOINT	100	Broke out and laid down Landing joint to RCWM. Meanwhile ballast rig to drillingdraft 25 m. Released Guide wires and pulled same to surface. Meanwhile performed connector test 20/200 Bar 5/60 min.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	04:30	05:30	60	0	14,3	LAND BOP	100	Stroked out N-line 2 m and started compensating. Adjusted N-line pressure. Landed BOP and sat down 30 ton. Locked connector and took 50 ton OP test. Unlocked innerbarrel and stroked out same.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	03:45	04:30	45	0	14,3	LAND BOP	100	Restabbed and connected guidepost 3 again . Sat all guidewires in CT 1,3 ton.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	03:30	03:45	15	0	14,3	LAND BOP	100	Established guidewire 1, 3, 5 in guide posts , sat CT to 1,3 ton on guide post 3 , post released unintentionally.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	02:45	03:30	45	0	24,98	MOVE RIG TO WELL/OFF WELL	100	Moved rig to well. Adjusted rig in cooperation with ROV. Meanwhile performed choke test 4 og 6 to 20/345bar for 5/10 min.	NO 35/11 B-13 HT3
01-feb-19	Deepsea Atlantic	00:00	02:45	165	0	14,1	PREPARE & RIGGING IN MOONPOOL	100	Arranged and prepared Umbilicals ,reelwires and sheaves for landing of BOP. Removed basket from subsea guide trolly .Meanwhile performed Pressure test of kill and chokeline to 20/345 bar for 5/10 min.	NO 35/11 B-13 HT3
31-jan-19	Deepsea Atlantic	21:30	00:00	150	378	14,1	PREPARE & RIGGING IN MOONPOOL	100	Installed STR/gooseneck assy to Slipjoint according to procedure. Arranged and prepared Umbilicals ,reelwires and sheaves for landing of BOP. Meanwhile deballast rig from 25 m to 23 m drillingdraft. Performed Pressure test of kill and chokeline to 20/345 bar for 5/10 min.	NO 35/11 B-13 HT3
31-jan-19	Deepsea Atlantic	20:45	21:30	45	378	14,31	HANDLE LANDING JOINT	100	Picked up and made up Landing joint. Continued RIS with BOP and position Slipjoint for handling STR.	NO 35/11 B-13 HT3
31-jan-19	Deepsea Atlantic	20:00	20:45	45	368	14,16	TELESCOPIC JOINT	100	Picked up and made up Slip joint. Continued RIS with BOP and landed same in spider.	NO 35/11 B-13 HT3
31-jan-19	Deepsea Atlantic	18:20	20:00	100	346	14,11	PRESSURE TEST K&C LINES	100	Filled lines. Installed pressurecaps. Pressuretested kill and choke lines to 20/345 bar 5/10 min. Tested boostline to 20/100bar 5/10 min. Removed pressurecaps.	NO 35/11 B-13 HT3
31-jan-19	Deepsea Atlantic	16:15	18:20	125	346	14,19	RUN BOP WITH BUOYANG RISER	100	RIS with BOP on buoyancy riser and 40ft Riser PJ	NO 35/11 B-13 HT3
31-jan-19	Deepsea Atlantic	14:40	16:15	95	219	14,1	PREPARE & RIGGING IN MOONPOOL	100	Rigging up wires for support POD lines.	NO 35/11 B-13 HT3
31-jan-19	Deepsea Atlantic	14:30	14:40	10	210	14,19	RUN BOP WITH BUOYANG RISER	100	RIS with BOP on buoyancy riser.	NO 35/11 B-13 HT3
31-jan-19	Deepsea Atlantic	13:20	14:30	70	196	14,11	PRESSURE TEST K&C LINES	100	Filled lines. Installed pressurecaps. Pressuretested kill and choke lines to 20/345 bar 5/10 min.Tested boostline to 20/100bar 5/10 min. Removed pressurecaps.	NO 35/11 B-13 HT3
31-jan-19	Deepsea Atlantic	12:30	13:20	50	196	14,19	RUN BOP WITH BUOYANG RISER	100	RIS with BOP on buoyancy riser.	NO 35/11 B-13 HT3
31-jan-19	Deepsea Atlantic	12:00	12:30	30	128	14,19	RUN BOP WITH SLICK RISER	100	RIS with BOP on slick riser.	NO 35/11 B-13 HT3
31-jan-19	Deepsea Atlantic	11:10	12:00	50	105	14,19	RUN BOP WITH SLICK RISER	100	RIS with BOP on slick risers.	NO 35/11 B-13 HT3
31-jan-19	Deepsea Atlantic	10:00	11:10	70	60	14,11	PRESSURE TEST K&C LINES	100	Filled lines. Installed pressurecaps. Pressuretested kill and choke lines to 20/345 bar 5/10 min. Tested boostline to 20/100bar 5/10 min. Removed pressurecaps.	NO 35/11 B-13 HT3
31-jan-19	Deepsea Atlantic	09:15	12:00	165	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation i AUX WC. Pulled HPC-RT to surface and secure same on XMT trolley.	NO 35/11 B-13 HT3
31-jan-19	Deepsea Atlantic	07:30	10:00	150	0	14,12	PREPARE TO RUN BOP	100	Lifted BOP from BOP trolley. Skided BOP off center. Adjusted rig. Ran BOP in LHG. Ran guideanchors to 340 m sealevel. RIS with BOP.	NO 35/11 B-13 HT3
31-jan-19	Deepsea Atlantic	07:00	07:30	30	0	23,6	WOW NON DRILLING ACTIVITIES	75	WOW due to too bad weather for running BOP into sea. Meanwhile General maintenace. Cleaned and cleared in drilling areas.	NO 35/11 B-13 HT3
31-jan-19	Deepsea Atlantic	00:00	07:00	420	0	23,6	WOW NON DRILLING ACTIVITIES	75	WOW due to too bad weather for running BOP into sea. Meanwhile General maintenace. Cleaned and cleared in drilling areas.	NO 35/11 B-13 HT3
30-jan-19	Deepsea Atlantic	17:00	00:00	420	0	23,6	WOW NON DRILLING ACTIVITIES	75	WOW due to harsh weather for running BOP through splash zone. Meanwhile cleaned and cleared in drilling areas. General maintenance.	NO 35/11 B-13 HT3
30-jan-19	Deepsea Atlantic	16:30	17:00	30	0	14,12	PREPARE TO RUN BOP	100	Prepared for RIS with BOP. Prepared for lifting of BOP from skid.	NO 35/11 B-13 HT3
30-jan-19	Deepsea Atlantic	12:00	16:30	270	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in Aux WC. Meanwhile maintenance drilling equipment and clean/clear drillfloor. Maintenace on cuttings handling system on shaker. Rigged up and pressure tested Kellyhose, auto and manual KC on Aux TD to 20/345 bar for 5/10 min.	NO 35/11 B-13 HT3
30-jan-19	Deepsea Atlantic	00:00	12:00	720	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in Aux WC. Meanwhile maintenance drilling equipment and clean/clear drillfloor. Replaced head on upper arm. Updated sub list. Replaced CCTV screen in AUX WC. Maintenace on cuttings handling system on shaker. Rigged up and pressure tested Kellyhose, auto and manual KC on Aux TD to 20/345 bar for 5/10 min.	NO 35/11 B-13 HT3

29-jan-19	Deepsea Atlantic	19:00	00:00	300	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in AUX wellcenter. Cleaned and cleared in drillfloor areas and derrick. Assisted ROV. General maintenance. Robotic tested Robot. NOV work on aux DW in cyberbase.	NO 35/11 B-13 HT3
29-jan-19	Deepsea Atlantic	15:15	19:00	225	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in AUX wellcenter. Cleaned and cleared in drillfloor areas and derrick. Assisted ROV. General maintenance. Robotic tested Robot. NOV work on aux DW in cyberbase.	NO 35/11 B-13 HT3
29-jan-19	Deepsea Atlantic	12:00	15:15	195	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in AUX wellcenter. Cleaned and cleared in drillfloor areas and derrick. Assisted ROV. General maintenance. Robotic tested Robot. NOV work on aux DW in cyberbase.	NO 35/11 B-13 HT3
29-jan-19	Deepsea Atlantic	02:00	12:00	600	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in AUX Wellcenter.	NO 35/11 B-13 HT3
29-jan-19	Deepsea Atlantic	00:00	02:00	120	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in AUX wellcenter. Cleaned and cleared in drillfloor areas and derrick. Assisted ROV. General maintenance. Welding on aux HR main arm.	NO 35/11 B-13 HT3
28-jan-19	Deepsea Atlantic	12:00	00:00	720	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in aux well. Meanwhile general maintenace in drilling areas. Re-installed guide for loops on main TD.	NO 35/11 B-13 HT3
28-jan-19	Deepsea Atlantic	00:00	12:00	720	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in AUX well center. Prepared BOP operation on drillfloor and in moonpool. Removed cmt manifold from AUX derrick. IFS work and general maintenace in drilling areas. Skidded BOP to wellcenter and made up riser to same. NOV Calibrated hookload on Main DW. Rigged up for re-installing guide for loop system.	NO 35/11 B-13 HT3
27-jan-19	Deepsea Atlantic	12:00	00:00	720	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in aux. Rigged up new HP test hose to test rack for KC/IBOP on drillfloor. General maintenace on drillfloor. Cleaned and cleared drillfloor areas.	NO 35/11 B-13 HT3
27-jan-19	Deepsea Atlantic	00:00	12:00	720	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in Aux WC. Meanwhile test cat heads in co-operation with NOV. Cleaned and cleared in derrick and drillfloor areas. General maintenance. Checked for ice in derrick.	NO 35/11 B-13 HT3
26-jan-19	Deepsea Atlantic	19:00	00:00	300	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in Aux WC. Meanwhile rig up BOP equipment. Instal riser spider and riser RT. P/U and M/U dbl 75ft riser jnt from RCWM. Performe brake test on DW's.	NO 35/11 B-13 HT3
26-jan-19	Deepsea Atlantic	12:00	19:00	420	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in aux well. Installed Baker sheave for control lines in derrick. Rigged up for lifting spider to main well from RCWM. General maintenance on drillfloor.	NO 35/11 B-13 HT3
26-jan-19	Deepsea Atlantic	00:00	12:00	720	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Removed diverter and L/D same to dock. Builded side entry stand for use in AUX for retrieval of XMT. Prepared for running BOP. Dismantled torque wrench, installed lifting cylinder for RHRT. Lifted torque tools to drillfloor. Prepared test caps for riser.	NO 35/11 B-13 HT3
25-jan-19	Deepsea Atlantic	13:00	00:00	660	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in aux well.	NO 35/11 B-13 HT3
25-jan-19	Deepsea Atlantic	12:00	13:00	60	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in Aux well. Meanwhile checked torque ,serial number and length on 2 stand 5 7/8 HWDP and 1 stand 3 1/2" DP used on Yardstay. General maintenace on drillfloor equipment. Changed wire on aux electrical manrider. Pull test of Catheads on drillfloor.	NO 35/11 B-13 HT3
25-jan-19	Deepsea Atlantic	06:30	12:00	330	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in AUX WC.	NO 35/11 B-13 HT3
25-jan-19	Deepsea Atlantic	00:00	06:30	390	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in AUX WC.	NO 35/11 B-13 HT3
24-jan-19	Deepsea Atlantic	19:50	00:00	250	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	100	Main operation in AUX	NO 35/11 B-13 HT3
24-jan-19	Deepsea Atlantic	19:20	19:50	30	0	25,22	DROP's Inspection	100	Continue drops inspection in drilling areas and on driling equipment.	NO 35/11 B-13 HT3
24-jan-19	Deepsea Atlantic	19:00	19:20	20	0	25,3	PREJOBMEETING - BRIEF/DEBRIEF	100	Handover with incoming crew.	NO 35/11 B-13 HT3
24-jan-19	Deepsea Atlantic	18:25	19:00	35	0	25,22	DROP's Inspection	100	DROPS inspection in drilling areas and on drilling equipments.	NO 35/11 B-13 HT3
24-jan-19	Deepsea Atlantic	15:00	18:25	205	0	24,6	YARDSTAY/MAINTENANCE STOP	100	Main operation in aux well.	NO 35/11 B-13 HT3
24-jan-19	Deepsea Atlantic	14:30	15:00	30	0	24,6	YARDSTAY/MAINTENANCE STOP	100	Main operation in aux well. Robotic tuned ROBOT.	NO 35/11 B-13 HT3
24-jan-19	Deepsea Atlantic	14:00	14:30	30	0	24,6	YARDSTAY/MAINTENANCE STOP	100	Performed ATP ACS with ROBOT in main.	NO 35/11 B-13 HT3
24-jan-19	Deepsea Atlantic	12:00	14:00	120	0	24,6	YARDSTAY/MAINTENANCE STOP	100	Main operation in aux well. Robotic tuning ROBOT.	NO 35/11 B-13 HT3
24-jan-19	Deepsea Atlantic	10:30	12:00	90	0	34,1	ACCEPTANCE TEST	0	RIH with 1 stand 5 7/8 hwdp. Performed ATP on auto TT system trip out mode, not able to test trip in mode before riser installed. Performed ATP on Robot according to procedure.	NO 35/11 B-13 HT3
24-jan-19	Deepsea Atlantic	06:30	10:30	240	0	24,6	YARDSTAY/MAINTENANCE STOP	0	POOH with 1 stand 5 7/8 HWDP, broke out XOS, broke out and laid down 4 qt 9 1/2" DC to RCWM, broke out bitsub and bit, racked back 1 stand 9 1/2" DC stand. Performed HT and easy torque break out torque Catheads.	NO 35/11 B-13 HT3
24-jan-19	Deepsea Atlantic	04:15	06:30	135	0	24,6	YARDSTAY/MAINTENANCE STOP	0	RIS with 3 STD 5 7/8" HWDP and POOS with same. Instal KC and RIS with 3 STD 5 7/8" HWDP with closed KC prior to POOS with wet DP. Fill DP and POOS with 5 7/8" HWDP wet.	NO 35/11 B-13 HT3
24-jan-19	Deepsea Atlantic	03:30	04:15	45	0	24,6	YARDSTAY/MAINTENANCE STOP	0	Demonstrate Auto driller ROP mode with different ROP setpoints. Ream back full stand. Verify Softspeed is installed in Cyberbase keypad and is able to activate.	NO 35/11 B-13 HT3
24-jan-19	Deepsea Atlantic	02:00	03:30	90	0	24,6	YARDSTAY/MAINTENANCE STOP	0	Disconnect TD from pipe to avoid pendling in moonpool during rotation test. Set 50 bar on IBOP and maintain during test. Rotate with 250 rpm and monitore until stabile temperatures on TD bearings, motor winding and gear oil for 10 min according to ATP procedure.	NO 35/11 B-13 HT3
24-jan-19	Deepsea Atlantic	01:00	02:00	60	0	24,6	YARDSTAY/MAINTENANCE STOP	0	Torque test on TD main using rig tong and 25 ton load cell. Record weights. 22 kNm on TD gives 2700 kg on load cell - calculated to 34,4 kNm. 40 kNm on TD gives 4400 kg on load cell - calculated to 56,1 kNm. 51 kNm on TD gives 5500 kg on load cell - calculated to 70,1 kNm.	NO 35/11 B-13 HT3
24-jan-19	Deepsea Atlantic	00:00	01:00	60	0	24,6	YARDSTAY/MAINTENANCE STOP	0	Continue to pump with mud pumps according to ATP procedure. Use direct SW. Pump with all 4 MP with 5000 lpm / 74 bar for 1 hour and check stabile temperature on crossheads, main bearing ect. Start temp approx 23 deg, after one hour approx 24 deg. Test of MP from Mode 3. Pumps available, but not able to operate MP. Held prejobmeeting for use of rigtongs during temp test of MP.	NO 35/11 B-13 HT3
23-jan-19	Deepsea Atlantic	22:30	00:00	90	0	34,1	ACCEPTANCE TEST	0	Connect TD. Pump with mud pumps according to ATP procedure. Use direct SW. Testing pumps individualy and in sync with different rates to compare readings. Count SPM on each pump with different rates. Test Standpipe Pressure Limiting Mode to hold 50 bar and to stop at 15 bar against closed IBOP. Test MP interlocks. Start to pump with all 4 MP with 5000 lpm / 74 bar for 1 hour and check stabile temperature on crossheads, main bearing ect.	NO 35/11 B-13 HT3
23-jan-19	Deepsea Atlantic	20:00	22:30	150	0	34,1	ACCEPTANCE TEST	0	Performed ATP prejobmeeting prior to RIH and start ri hoisting system, MP and TD test. RIH and M/U bit, bitsub, 2 stands 9 1/2" DC , 5 7/8 HWDP stand and connected TD to string. Performed ATP Test according to Program/DOP.	NO 35/11 B-13 HT3
23-jan-19	Deepsea Atlantic	18:00	20:00	120	0	43,05	MAIN OPERATION IN OTHER WELL CENTER	0	Main operation in aux well.	NO 35/11 B-13 HT3
23-jan-19	Deepsea Atlantic	15:30	18:00	150	0	34,1	ACCEPTANCE TEST	0	Rigged down CSG equipment in main. Lifted CSG tong to RCWM skid and down to deck. Difficult and time consuming to lift CSG tong from main well to RCWM skid. Not normal operation to handle CSG tong out/in main well center from RCWM , but not able to transfer CSG tong to aux well due to Robot. Changed to 6 5/8 inserts in elevator. Prepared for MP test ATP.	NO 35/11 B-13 HT3
23-jan-19	Deepsea Atlantic	12:00	15:30	210	0	34,1	ACCEPTANCE TEST	0	APT TT team DROPS check of TD aux and main. Commissioning on auto triptank sequence.Handover with oncomming crew.	NO 35/11 B-13 HT3
23-jan-19	Deepsea Atlantic	11:00	12:00	60	0	34,1	ACCEPTANCE TEST	0	Test fingerbord with 14" casing duo to ATP test prosedure.	NO 35/11 B-13 HT3
23-jan-19	Deepsea Atlantic	09:20	11:00	100	0	34,1	ACCEPTANCE TEST	0	Brake out 14" casing with casing tong. Test row 1 to 7 with 14" casing stand with aux HR. Rack back 14" casing.	NO 35/11 B-13 HT3
23-jan-19	Deepsea Atlantic	07:20	09:20	120	0	34,1	ACCEPTANCE TEST	0	Make up one std with 14" casing with CRTi and FMS according to ATP procedure.	NO 35/11 B-13 HT3
23-jan-19	Deepsea Atlantic	07:00	07:20	20	0	34,1	ACCEPTANCE TEST	0	Rig up 14" casing equiptment in main due to ATP test.	NO 35/11 B-13 HT3
23-jan-19	Deepsea Atlantic	00:00	07:00	420	0	34,1	ACCEPTANCE TEST	0	NOV work on ASC on monkey tail PCWM. Robotic work with ACS for Robot in main. Checked reaminding interlocks on HRs and aux TD. ATP on Floor and Crown saver AUX well. ATP on build 14" CSG stand and rack back same in fingerboard. Rigged down 14" CSG equipment in aux. Rigged up 14" CSG equipment in main.Changed from BX-4 to BX-3 in main. Splitted CSG tong to be able to transfer same to main well. Lifted upper part from aux well to PCWM and transfered same with rig crane to RCWM. Lifted lower part with tugger from aux to main well. Lifted Upper CSG tong part from RCWM and mounted same on lower part in main well. Installed FMS in main.	NO 35/11 B-13 HT3
22-jan-19	Deepsea Atlantic	12:00	00:00	720	0	24,6	YARDSTAY/MAINTENANCE STOP	0	Perform ATP of diverter system. Perform internal Odfjell ATP of all interlocks on drillfloor. Close punch from ATP on choke manifold. Work with aux DW software. Pressuretest choke manifold to 20 bar/5 min and 1034 bar/10 min with Koomey unit. 2 tests remaining - need to perform after BOP installed. Perform deluge test on drillfloor/shaker/moonpool. Clean and clear in shaker area after deluge test. Close ATP punch items on main HR vs PCWM ACS, elevator vs aux HR upper arm ACS. Work and test auto triptank system. Remove scaffolding in derrcik port aft level 6. Remove camera C19 due to powerloop pendling into it. Polster sharp edges in derrick due to powerloop pendling into it. Change couplings on torquewrench. Work with mudbucket to operate it from drillers cabin. Assist Aker with sheave for umbilical in moopool. Work with EX bleed-off cabinet. Climbers DROPS check in derrick. RDS tuns robot on drillfloor. Repair emergency stop on manrider. Clean and clear driller cabin. NOV work with TT auto system. Changed hydraulic hoses on Mud bucket.	NO 35/11 B-13 HT3
22-jan-19	Deepsea Atlantic	07:00	12:00	300	0	24,6	YARDSTAY/MAINTENANCE STOP	0	Perform ATP of diverter system. Perform internal Odfjell ATP of all interlocks on drillfloor. Close punch from ATP on choke manifold. Work with aux DW software. Pressuretest choke manifold to 20 bar/5 min and 1034 bar/10 min with Koomey unit. 2 tests remaining - need to perform after BOP installed. Perform deluge test on drillfloor/shaker/moonpool. Clean and clear in shaker area after deluge test. Close ATP punch items on main HR vs PCWM ACS, elevator vs aux HR upper arm ACS. Work and test auto triptank system. Remove scaffolding in derrcik port aft level 6. Remove camera C19 due to powerloop pendling into it. Polster sharp edges in derrick due to powerloop pendling into it. Change couplings on torquewrench. Work with mudbucket to operate it from drillers cabin. Assist Aker with sheave for umbilical in moopool. Work with EX bleed-off cabinet. Climbers DROPS check in derrick. Repair emergency stop on manrider. RDS tune robot on drillfloor. Clean and clear driller cabin.	NO 35/11 B-13 HT3
22-jan-19	Deepsea Atlantic	00:00	07:00	420	0	24,6	YARDSTAY/MAINTENANCE STOP	0	NOV and odfjell electronics troubleshot on ADW. Performed ATP on Anti-collision system main and aux. ATP on 1 electrical and 1 hydraulic manrider winch on drillfloor. ATP on electrical manrider on cellardeck. NOV work on RCWM. Ran 1 stand 5 7/8 hwdp through and function tested diverter. Greased choke and pressure tested choke to 20/1034 bar for 5/10 min.	NO 35/11 B-13 HT3
21-jan-19	Deepsea Atlantic	19:45	00:00	255	0	24,6	YARDSTAY/MAINTENANCE STOP	0	Performed ATP on emergency stops on Main and Aux well center according to Test program. Performed ATP Main well floor and crown saver. NOV troubleshot on cyberbase/PLC system fault and AWD position fault/prox fault. Changed shuttle valve on RCWM.	NO 35/11 B-13 HT3
21-jan-19	Deepsea Atlantic	12:00	19:45	465	0	24,6	YARDSTAY/MAINTENANCE STOP	0	ATP for leaktest diverter to 35 bar - ok. Perform bodytest of diverter to 52 bar -ok. Install chains on weight compensator cylinders. Setup ACS on robot. Work with automatic triptank squence in cyberbase C. Weld new door on EX-panel for bleed-off valve. Install protection cabinets on HR lower trolleys. Clean and clear drillfloor. Troubleshoot on diverter closing sequence. Equinor climber team perform DROPS in derrick. DP TM tuning on bridge. NOV work with ACS system.	NO 35/11 B-13 HT3

21-jan-19	Deepsea Atlantic	00:00	12:00	720	0	24,6	YARDSTAY/MAINTENANCE STOP	0	Troubleshot on elevator on aux TD.Troubleshot on TT system, adjusted new valves on TT system, ok. Changed wire on main electrical manrider wire. Attempted to pressure test diverter, No go., leak through flow line valve. Continued work on flowline valve. Calibrated HRs with 14" CSG in remaining fingers. Changed wire on hydraulic manrider on drillfloor.	NO 35/11 B-13 HT3
20-jan-19	Deepsea Atlantic	22:25	00:00	95	0	24,6	YARDSTAY/MAINTENANCE STOP	0	Troubleshot on TT system. Changed wire on main electrical manrider wire. Troubleshot on elevator on aux TD. NOV troubleshot on Aux DW, not able to calibrate height. Calibration height ADW ok. Continue to repair valve on flowline.	NO 35/11 B-13 HT3
20-jan-19	Deepsea Atlantic	18:00	22:25	265	0	24,2	ANCHOR HANDLING ARRIVAL	0	Anchorhandling arrival at Fram field. Rig at 25 m draft at 2200 hrs. Anchor handling finnished at 22.25 hrs.Meanwhile continue to repair valve on flowline. Clean and clear on drillfloor and remove equipment in derrick. Installed washpipe in aux TD. NOV work on elevator and retract function main TD. Troubleshot on TT system. Changed wire on main electrical manrider wire. NOV work on RCWM. Trouble shot on elevator on aux TD. NOV troubleshot on Aux DW, not able to calibrate height.	NO 35/11 B-13 HT3
20-jan-19	Deepsea Atlantic	12:00	18:00	360	0	24,73	DP TRIALS	0	DP trails and de-ballast rig. Meanwhile calibrate casingboard with 14" casing with main HR. Troubleshoot on risercatwalk machine. Scaffolders remove scaffolding in derrick. Test MP's from mode 2 and mode 5 in cyberbase. ATP on choke manifold. P/U and install diverter. Attempt to pressuretest diverter to 51 bar. Repair leakage on actuator on flowline valve.	NO 35/11 B-13 HT3
20-jan-19	Deepsea Atlantic	09:45	12:00	135	0	24,73	DP TRIALS	0	DP trails and de-ballast rig. Meanwhile calibrate casingboard with 14" casing with main HR. Troubleshoot on risercatwalk machine. Scaffolders remove scaffolding in derrick. Test MP's from mode 2 and mode 5 in cyberbase. ATP on choke manifold.	NO 35/11 B-13 HT3
20-jan-19	Deepsea Atlantic	00:20	09:45	565	0	24	IN TRANSIT / SKID RIG	0	In transit til Fram field	Yardstay CCB december 2018
20-jan-19	Deepsea Atlantic	00:00	00:20	20	0	24,6	YARDSTAY/MAINTENANCE STOP	0	Installed washpipe on Main TD. Pressure tested standpipe to 517 bar. Troubleshot on elevator aux TD. Tighten nut on kellyhose on TD side on aux TD. NOV work on interlocks on aux TD.	Yardstay CCB december 2018

F. DSA Unit Specific Energy Management Plan

Grading: OPEN	Company Management System
	Hard copies of this procedure are uncontrolled copies.

DSA - Unit Specific Energy Management Plan – (USEMP)

L4-MODU-DSA-E-MA-308

CHAP. NO	DESCRIPTION	REV. NO	DATE
All	New procedure	1	31.01.2019

DEFINITIONS AND ABBREVIATIONS

AHD	Active Heave Drawwork
AHDD	Active Heave Dual Drawwork
Client	Operator Company
CMS	Company Management System
CO_2	Carbon dioxide The term CO_2 is chemistry shorthand for molecules containing one carbon atom and two oxygen atoms. CO_2 is a colourless, odourless, non-combustible greenhouse-gas that contributes to global warming. It is formed by complete combustion of fossil fuels (coal, charcoal, natural gas, petroleum) and carbon containing products (such as wood). It is one of the greenhouse gases and it is said to be the cause of changes in global climatic patterns.
CTS	Cuttings Transport System
DnV	Det norske veritas
DP	Dynamic Positioning
DSA	Deepsea Atlantic
EnMS	Energy Management System
EnPI	Energy Performance Indicators EnPIs are quantitative, i.e. measurable values of energy performance, which are defined by the organisation i.e. key indicators representative of what the organisation is trying to achieve. The term EnPI is introduced to specifically identify KPIs related to energy efficiency and distinguish from other KPIs.
FDS	Functional Design Specification
FW	Fresh Water
HPU	Hydraulic Power Unit
HVAC	Heating, Ventilation & Air Conditioning
IAS	IAS = Integrated Automation System
KPI	Key Performance Indicator (similar EnPI)
MCC	MCC stands for motor control center.
MODU	Mobile Offshore Drilling Unit
NOX	Nitrogen oxides; The term NO_X is chemistry shorthand for molecules containing one nitrogen atom and one or more oxygen atoms. NO_X is a generic term for the nitrogen oxides that are most relevant for air pollution. These gases contribute to the formation of smog and acid rain. NO_X gases are usually produced from the reaction among nitrogen and oxygen during combustion of fuels, such as hydrocarbons.
PMS	Power Management System
QHSE	Quality, Health, Safety, Environment
RMR	Riserless Mud Recovery
ROV	Remotely Operated Vehicle
SG	Specific Gravity
SW	Sea Water
VDU	Visual Display Unit (for IAS)
VFD	Variable Frequency Drives
UPS	Uninterruptable Power Supply (UPS) System
USEMP	Unit Specific Energy Management Plan

	The USEMPs are established in accordance with requirements in the operator's discharge permit. The USEMPs are based on requirements in ISO 14001 and ISO 50001.

1 INTRODUCTION

The purpose of the Unit Specific Energy Management Plan (USEMP) is to describe how energy management is implemented and adhered to on board Deepsea Atlantic (DSA).

Reference is made to L3-MODU-ALL-HSE-PR-042 MODU ENERGY MANAGEMENT SYSTEM PROCEDURE for purpose, scope and general requirements applicable for Odfjell Drilling MODUs.

The plan contains the following information:

- Description of energy generation
- An overview over all energy users/consumers on board and how these are operated in order to achieve the most energy efficient operations.
- KPIs (ENPIs) used to monitor improvement in energy efficiency on a daily basis
- Measures identified that can improve energy efficiency on-board
- Goals for energy management 2019
- Plan for implementation of identified measures
- Evaluation and improvement proposals

The USEMP shall be in accordance with Odfjell Drilling's overall policy with respect to energy management.

2 RESPONSIBILITIES & AUTHORITIES

Rig Manager	Ensure that operational and client contractual considerations are evaluated and implemented in the development of the EnMS. Develop and implement USEMP. Ensure implementation and commitment to energy management within the on- and offshore rig organization.
Technical Superintendent	Ensure implementation and performance of the unit specific Energy Management. Implementation of this USEMP. Monitor the effect of implemented measures based on measurements and analysis.
OIM	Ensure that the USEMP is implemented and assure that all relevant personnel is familiar with these requirements. Reporting the effect of implemented measures, and revising the USEMP as required.

3 DEEPSEA ATLANTIC – GVA 7500 RIG SERIES

The Odfjell Drilling GVA 7500 rig series are designed for operation as DP3 units as well as POSMOOR. This means that the units can maintain position fully by use of thrusters if the water depth allows for it or they can operate as a combination of chain mooring and use of thrusters to assist the station keeping. In order to maintain these features a high degree of redundancy is put in to the design including four separate power systems. Further the rig is equipped with a state of the art drilling package with a pure electrical redundant main hoisting and compensation system.

4 POWER GENERATION AND DISTRIBUTION

DSA electrical power plant is designed for DP operation in accordance with the DNV DYNPOS AUTRO (DP Class 3) and meet performance criteria to satisfy classification, in particular the following categories:-

- Electrical load analysis
- Short circuit analysis
- Voltage drop analysis (including motor start analysis)
- Relay coordination study
- Harmonic analysis

The power generation plant consists of 4 quadrants each containing 2 diesel generators (each 5530 kW, 11 kV, 60 Hz), high (11 kV) and low (690/230 V) voltage switchboards with sub-distributors supplying the various consumers such as drilling equipment, thrusters, auxiliary systems, living quarters and so on.

The quadrants are normally in 2-split configuration (FWD-AFT split). For demanding conditions a 4 split configuration is used for maximum redundancy.

For critical systems there is redundancy feed from another quadrant ensuring critical equipment in each quadrant is kept alive even if total loss of power in one quadrant. One of the diesel generators in each quadrant has the function of emergency generator.

For further information reference is made to documentation in Insights:
3023DA941E102 OVERALL ONELINE DIAGRAM FOR POWER SYSTEM
3023DA941E160 SOLD SIMPLIFIED ONE LINE DIAGRAM
3023DA933E001 FUNCTIONAL DESCRIPTION POWER MANAGEMENT SYSTEM

5 ENERGY CONSUMERS

Load and effect variations may vary greatly depending on numerous parameters, e.g. location, season, well and operation specific parameters and restrictions. It is hence currently not possible to differentiate load with respect to various modes of operation.

5.1 Drilling

Object	Maker	Type	Connected Load
Drawwork	NOV	2 x Main AHDD 1000 MT	12 x 858 kW
	NOV	1 x Aux AHD 500 MT	
TopDrive x 2	NOV (ABB)	2 x HPS-03-1000	2 x (2 x 858 kW)
Mud pumps (Triplex)	NOV	4 x 14-P-220	8 x 858 kW
Shaker	NOV Brandt	5 x VSM300-OM-0024	0 x 3 kW
Cement pump	HALLIBURTON	2 X HT-400 ADVANTAGE SKID	2 x 857 kW

For further information reference is made to documentation in Insights:

a) 3023DV941E703 FUNCTIONAL DESIGN SPECIFICATION - AC Drilling Drives
b) T7200-E-LA-018 Electrical Load List - MCC & VFD

Note: Cement System is a Free Placement Agreement.

Drilling System –
Variations effect loads due to operational daily variations. High peaks du to operation issues can also occur.

ATTACHMENT 4 – DRILLING POWER LIMITING SYSTEM (DPLS) – Functionality

- description of operation to archive the most energy efficient operation:

5.2 Station-keeping

Object	Maker	Type	Connected Load
Thrusters	Wartsila Lips	8 x FS3500-571 NU	8 x 4000 kW
Windlass	Rolls Royce	4 x BO84R5 double rig anchor mooring winch	4 x 480 kW

For further information reference is made to documentation in Insights:

a) 3023DV941E430 THRUSTER VDF - FUNCTIONAL DESCRIPTION
b) 3023DA431E001 FUNCTIONAL DESCRIPTION MOORING SYSTEM

Station Keeping –
- Variations effect loads due to seasonal and daily variations.

Description of operation to archive the most energy efficient operation:

- See attachment for Power Management description.

The electrical power plant is designed for DP operation in accordance with the DNV DYNPOS AUTRO (DP Class 3) with possibility for quadruple network operation. The rig is designed to continue drilling operations during contractually defined environmental conditions.

Power plant operation as such enables multiple operation alternatives – in any configurations like fully split in four quadrants; two sections joined; three or four joined. This is dependant of the Weather Conditions vs. Position Keeping capability upon loss of thrusters after single failure.

5.3 Utility systems

System/Object	Maker	Type	Connected Load
Cooling water – SW cooling pumps	Hamworthy Pte LTD	8 x Main 4 duty, 4 standby	8 x 152 kW
Cooling water – FW cooling circulation pumps	Hamworthy Pte LTD	8 pumps 4 duty, 4 standby	8 x 63 kW
Cooling water – SW Service pumps	Hamworthy Pte LTD	2 pumps 1 duty, 1 standby	2 x 450 kW
Fire water – Fire Pumps and jockey pump	Iron Pump AS / Hamworthy Pte LTD	normally all in standby	4 x 450 kW 1 x 39,4 kW
HVAC AHU and fans	Eastpoint		4000 kW (est.)
Cranes – Offshore Crane Knuckle boom	NOV	2 x Type 3932	4 x 485 kW
HPU – Main ringline HPU	NOV	6 x HPU pumps	6 x 165 kW
Thermal oil heating -	Aalborg Thermal oil heaters	2 x	2 x 2500 kW

For further information reference is made to documentation in Insights:

a) 3023DR900E014 ELECTRICAL LOAD ANALYSIS
b) DNV CERTIFICATE LIST - MARINE & MACHINERY / STEEL OUTFITTING / HVAC / E&I (NSFI 10)

Utility System –
- Variations effect loads due to seasonal and daily variations.

Description of operation to archive the most energy efficient operation:

- See attachment for Power Management description.

5.4 3rd party Typical systems and equipment are shown in matrix below.

3. Party is Client sub-contractors and are under individual contracts.

System/Object	Maker	Procedure	Connected Load
Coil Tubing System	According to Contract with Client	TEMPORARY EQUIPMENT L3-MODU-ALL-TO-PR-016 L4-MODU-DSA-E-MA-450-80 DSA PS SECE TE1 TEMPORARY AND THIRD PARTY EQUIPMENT	TBA
Gravel Pack	According to Contract with Client		TBA
Riserless Mud Recovery	According to Contract with Client		TBA
ROV	According to Contract with Client		TBA
Well Test	According to Contract with Client		TBA
Wireline	According to Contract with Client		TBA
Other?	According to Contract with Client		TBA

For details regarding the individual consumers' loading reference is made to:

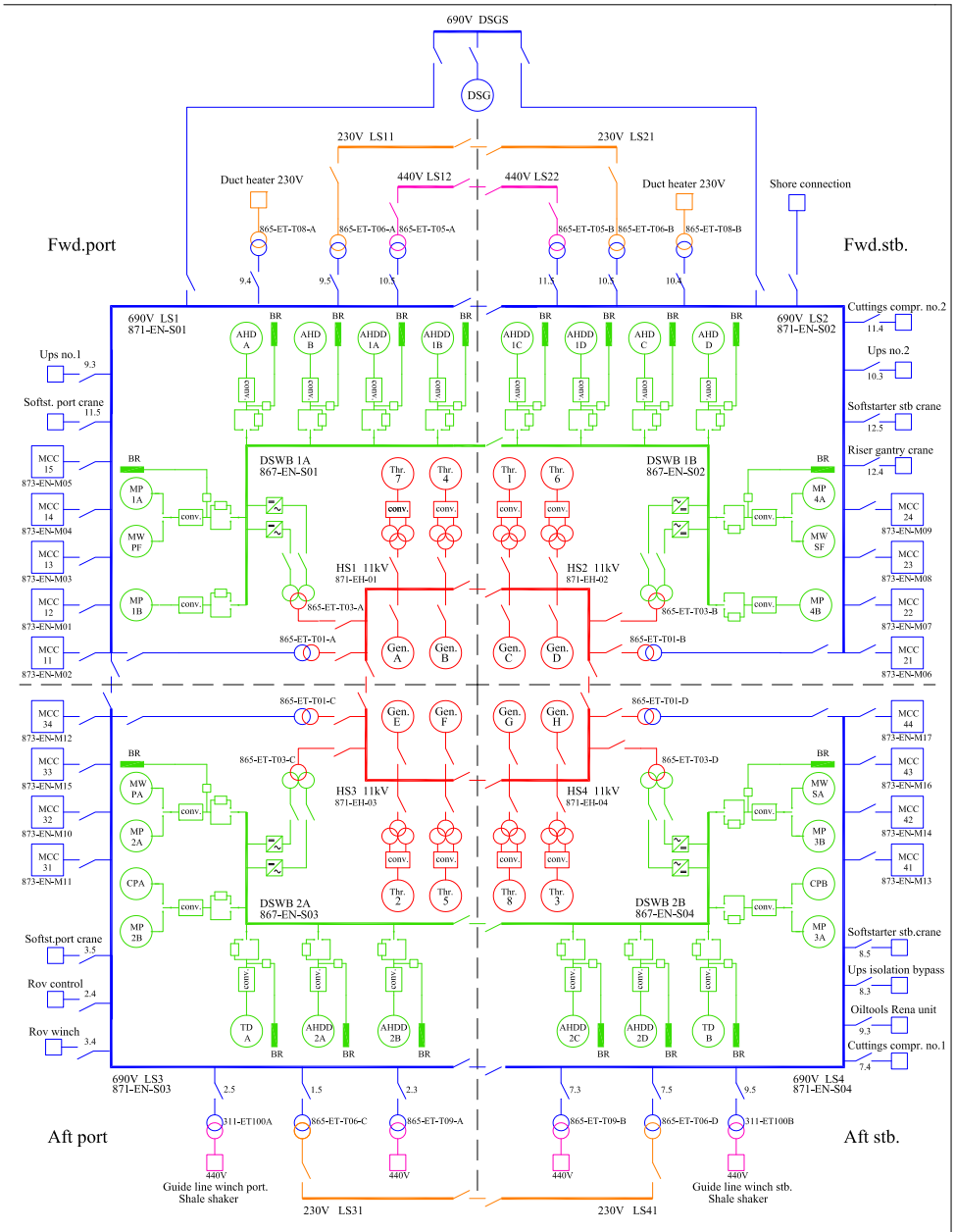
a) 3023DR900E014 ELECTRICAL LOAD ANALYSIS
b) T7200-E-LA-018 Electrical Load List - MCC & VFD

Note; Cement System is a Free Placement Agreement. See under Drilling ch.4.1

3 rd Party –
Description of operation to archive the most energy efficient operation:

- See attachment for Power Management description.
- See also each service provider strategy for operating the equipment according to Contract requirement

G. DSA Simplified One-Line Diagram



Rev.	Remarks	Date	Name		Date	Name
				Creat	17.06.08	FINS
				Appr.	31.08.08	JAF
E	Redraw	22.07.15	FINS	Norm		
D	Redraw	24.06.09	FINS			
C	Redraw	26.09.08	FINS			
B	Redraw	17.09.08	FINS			
A	Construction	31.08.08	FINS			

SOLD©
Simplified One Line Diagram
DeepSea Atlantic

ODFJELL DEEPSEA ATLANTIC

3023DA941E160 E

Numbering of the thrusters are according to Kongsberg Maritime

SOLD invented by JAF and FINS

Finn Silseth

H. Electrical Load Analysis

Electrical Load Analysis

Rev	Date	Descriptions	Prep'd	Chk'd	Chk'd	App'd
Z	Jun.18.2010	AS BUILT	S.I.Jang		J.K.Choi	S.J.Seo
1	Feb.04.2010	Revised for Construction	S.I.Jang		J.K.Choi	S.J.Seo
0	Nov.25.2008	Issued for Construction	I.S.Choi		J.K.Choi	S.J.Seo

Issued by	Approved	Checked	Checked	Prepared	Distribution
Offshore & Special Ship Engineering Center	S.J.Seo	J.K.Choi		S.I.Jang	

NOTES:

1. **Service and abbreiation**

M	Marine
D	Drilling
T	Truster or Mooring
V	Ventilaion
DOL	Direct On Line
FDR	Feeder
SFT	Soft Starter
VFD	Variable Frequency Driver
2SP	2-Speed Starter

2. **Load Factor (L.F.)**

$$\frac{\text{Normal running load (KW)}}{\text{Motor design rating (KW)}} = \frac{\text{Power consumption (KW)}}{\text{Motor Name Plate (KW)}}$$

3. **Diversity Factor (DF)**

Factor taking into account the amount of time unit is working in a given period

4. **LOAD DATA**

KW = Name Plate KW
KVA = Name Plate KW/Power Factor
PF= kW/kVA (Cosine phi)
EFF.= Output Power / Input Power (Power losses of equipment)
FLA = Name Plate KW/ 1.732/Nominal Voltage (kV)/P.F./EFF.

5. **Operating Load different modes**

Operating KW = Load Data KW / EFF X LF X DF

6. **Operating Conditions**

Transit Mode

Ship mode. Seatrial or unerway to drilling location. During transit all drilling operations shall have ceased and no drilling auxiliaries shall be opeating

Drilling plus 75% DP .

This case is based on a situation when weather and environmental forces require 75% thruster capacity for station keeping. During hoisting/tripping the mud pumps will be stopped.

Back-reaming plus 75% DP .

When performing back-reaming at a condition requiring 75% DP power (i.e. extreme drilling loads in combination with dimensioning environmental condition).

Circulation of well after DP max single failure.

This condition assume maximum DP failure (loss of one engine room) and that a well shall be circulated to a balanced condition. No drilling is performed in this emergency condition where the priorit

Dead Ship Condition

Dead Ship Generator is to enable to start up the platform from condition where “all stored energy sources are empty” or in such condition that they cannot contribute to startup the platform, “dead ship”.

Emergency Mode

The class requirement, for the services which are to operate in during emergency situation, is complemented with the urgency to re-start the propulsion; for this purpose, 4 main engines, one per engine room, are used as emergency generators.

7. **Reference Document**

DOC. Number	***Description***	***Remark***
F001-EL-CA-910-0001 (IDE)	Electrical Load Analysis (GVAC IDE)	
F001-MU-DB-914-0002 (IDE)	Desing Basis for Dead Ship Generator (GVAC IDE)	
3025DR900E004	FUNCTIONAL DESCRIPTION FOR POWER SYSTEM	
3025DR900E018	MCC PRINCIPLE LIST	
3025DR900E010	CONSUMER LIST FOR 230V/110V LTG/SMALL POWER	
3025DR900E011	CONSUMER LIST FOR 230V/110V UPS SYS.	
3025DA941E150	PANEL BOARD SCHEDULE FOR LTG & SMALL POWER	
3025DA941E151	PANEL BOARD SCHEDULE FOR LTG & SMALL POWER(L/Q)	
3025DA941E152	PANEL BOARD SCHEDULE FOR 690V AND 440V	

	ELECTRICAL LOAD ANALYSIS	PROJ	ODFJELL
	SUMMARY	DATE	2010.06.18

SUMMARY FOR VARIOUS OPERATING MODES [KW]

OPERATING CONDITION	TRANSIT + DP 75%	MOORING + THR ASST 50%	DRILLING + DP 50%	DRILLING + DP 75%	BK REAM'G + DP 75%	WELL CIRC. Note (1)	DEAD SHIP CONDITION	EMER'CY MODE Note (2)	REMARIK
LS1 +LS2 + LS3 + LS4	6 911	8 402	8 909	8 909	9 043	8 931	271	4 582	
DRILLING VFD's	-	6 785	6 785	6 785	5 223	2 144	-	*343*	
THRUSTERS	23 520	15 680	15 680	23 520	23 520	23 520	-	-	
TOTAL POWER LOADING	***30 431***	***30 867***	***31 374***	***39 214***	***37 786***	***34 595***	***271***	***4 925***	
DG IN OPERATION	6	7	7	8	8	6	1	4	
KW RATING	5 530	5 530	5 530	5 530	5 530	5 530	350	5 530	
GENERATOR POWER	33 180	38 710	38 710	44 240	44 240	33 180	350	22 120	
LOAD FACTOR	***91,7%***	***79,7%***	***81,0%***	***88,6%***	***85,4%***	***See table below***	***77,3%***	***22,3%***	

Note (1) Circulation of well after DP max single failure, 6 thrusters considered running at full load (100%)

(2) One cement pump with aux. utilities to be considered in operation for emergency mud circulation of well when only the rig is moored.

MAX HV SWBD LOADING IN WELL CIRCULATION MODE AFTER DP MAX SINGLE FAILURE [KW]

MAXMUM LOADING OF HV SWBD WHEN OPPOSITE HV SWBD OR ONE ENGINE ROOM FAIL

KW	871-EH-001	871-EH-002	871-EH-003	871-EH-004	*REMARK*
MAXMUM LOADING PER HV SWBD	11 107	10 439	9 945	10 945	
DG IN OPERATION PER HV SWBD	2	2	2	2	
KW RATING	5 530	5 530	5 530	5 530	
GENERATOR POWER PER HV SWBD	11 060	11 060	11 060	11 060	
LOAD FACTOR	***100,4%***	***94,4%***	***89,9%***	***99,0%***	

Odfjell GVA 7500 Semi-submersible Drilling Rig
Project NO: 3025

ELECTRICAL LOAD ANALYSIS

S/N	Equipment number	DESCRIPTION	CONNECTED LOAD					L.F.	TRANSIT + DP 75%		MOORING + THR ASST 50%		DRILLING + DP 50%		DRILLING + DP 75%		BK REAM'G + DP 75%		WELL CIRC'N AFTER DP MAX SINGLE FAILURE		DEAD SHIP POWER		EMERGENCY MODE		REMARK
			kW	VOLT	EFF	PF	AMP		DF	kW	DF	kW	DF	kW	DF	kW	DF	kW	DF	kW	DF	kW	DF	kW	
1	871-EN-S01	690V MAIN SWITCHBOARD (LS1)							0	2069,3	0	2462,8	0	2566,4	0	2587,3	0	2609,0	0	2436,2	0	270,5	0	1183,3	
2	867-EN-S01	DRILLING VFD SWITCHBOARD (DSWB1A)										2105,1	0	2333,1	0	1815,2	0	1236,7	0	830,3	0	0,0	0	0,0	
3	635-EM-001-H	THRUSTER MOTOR	4 000		0,985	0,95		0,98	75	2940,0	50	1960,0	50	1960,0	75	2940,0	75	2940,0	100	3920,0		0		0	
4	635-EM-001-B	THRUSTER MOTOR	4 000		0,985	0,95		0,98	75	2940,0	50	1960,0	50	1960,0	75	2940,0	75	2940,0	100	3920,0		0		0	
		Total consumption of 871-EH-001 (HS1)								***7949***		***8488***		***8820***		***10283***		***9726***		***11107***		***271***		***1183***	
1	871-EN-S02	690V MAIN SWITCHBOARD (LS2)							0	1685,6	0	2105,1	0	2333,1	0	2327,6	0	2417,8	0	2599,1	0	0,0	0	911,1	
2	867-EN-S02	DRILLING VFD SWITCHBOARD (DSWB1B)										0,0		1815,2	0	1815,2	0	1236,7	0	0,0	0	0,0	0	0,0	
3	635-EM-001-C	THRUSTER MOTOR	4 000		0,985	0,95		0,98	75	2940,0	50	1960,0	50	1960,0	75	2940,0	75	2940,0	100	3920,0		0		0	
4	635-EM-001-E	THRUSTER MOTOR	4 000		0,985	0,95		0,98	75	2940,0	50	1960,0	50	1960,0	75	2940,0	75	2940,0	100	3920,0		0		0	
		Total consumption of 871-EH-002 (HS2)								***7566***		***6025***		***8068***		***10023***		***9535***		***10439***		***0***		***911***	
1	871-EN-S03	690V MAIN SWITCHBOARD (LS3)							0	1482,0	0	1784,9	0	1813,1	0	1838,8	0	1849,6	0	1759,1	0	0,0	0	1290,5	
2	867-EN-S03	DRILLING VFD SWITCHBOARD (DSWB2A)										0,0		1577,2	0	1577,2	0	1374,8	0	345,4	0	0,0	0	0,0	
3	635-EM-001-F	THRUSTER MOTOR	4 000		0,985	0,95		0,98	75	2940,0	50	1960,0	50	1960,0	75	2940,0	75	2940,0	100	3920,0		0		0	
4	635-EM-001-D	THRUSTER MOTOR	4 000		0,985	0,95		0,98	75	2940,0	50	1960,0	50	1960,0	75	2940,0	75	2940,0	100	3920,0		0		0	
		Total consumption of 871-EH-003 (HS3)								***7362***		***5705***		***7310***		***9296***		***9104***		***9945***		***0***		***1291***	
1	871-EN-S04	690V MAIN SWITCHBOARD (LS4)							0	1674,4	0	2049,3	0	2123,5	0	2155,8	0	2166,6	0	2136,7	0	0,0	0	1197,3	
2	867-EN-S04	DRILLING VFD SWITCHBOARD (DSWB2B)								5817,0		0,0		1577,2	0	1577,2	0	1374,8	0	968,5	0	0,0	0	0,0	
3	635-EM-001-G	THRUSTER MOTOR	4 000		0,985	0,95		0,98	75	2940,0	50	1960,0	50	1960,0	75	2940,0	75	2940,0	100	3920,0		0		0	
4	635-EM-001-A	THRUSTER MOTOR	4 000		0,985	0,95		0,98	75	2940,0	50	1960,0	50	1960,0	75	2940,0	75	2940,0	100	3920,0		0		0	
		Total consumption of 871-EH-004 (HS4)								***13371***		***5969***		***7621***		***9613***		***9421***		***10945***		***0***		***1197***	

Odfjell GVA 7500 Semi-submersible Drilling Rig
Project NO: 3025

ELECTRICAL LOAD ANALYSIS

S/N	Equipment number	DESCRIPTION	SER-VICE	STAR TER TYPE	CONNECTED LOAD					L.F.	TRANSIT + DP 75%		MOORING + THR ASST 50%		DRILLING + DP 50%		DRILLING + DP 75%		BK REAM'G + DP 75%		WELL CIRC'N AFTER DP MAX SINGLE FAILURE		DEAD SHIP POWER		EMERGENCY MODE		REMARK
					kW	VOLT	EFF	PF	AMP		DF	kW	DF	kW	DF	kW	DF	kW	DF	kW	DF	kW	DF	kW	DF	kW	
1	325-EM101AA	HP MUD PUMP NO. 1, MOTOR A	D	VFD	858,0	690	0,93	0,83	1120	0,90	0	0,0	45	373,6	45	373,6	45	373,6	25	207,6	50	415,2	0	0	0	0	
2	325-EM101AB	HP MUD PUMP NO. 1, MOTOR B	D	VFD	858,0	690	0,93	0,83	1120	0,90	0	0,0	45	373,6	45	373,6	45	373,6	25	207,6	50	415,2	0	0	0	0	
4	312-EM001A	AHD 500 DRAWWORKS MOTOR #A	D	VFD	858,0	690	0,94	0,83	1120	0,90	0	0,0	25	205,4	25	205,4	25	205,4	0	0,0	0	0,0	0	0	0	0	
5	312-EM001B	AHD 500 DRAWWORKS MOTOR #B	D	VFD	858,0	690	0,94	0,83	1120	0,90	0	0,0	25	205,4	25	205,4	25	205,4	0	0,0	0	0,0	0	0	0	0	
6	312-EM201A	AHDD DRAWWORKS A MOTOR #A	D	VFD	858,0	690	0,94	0,83	1120	0,90	0	0,0	40	328,6	40	328,6	40	328,6	50	410,7	0	0,0	0	0	0	0	
7	312-EM201B	AHDD DRAWWORKS A MOTOR #B	D	VFD	858,0	690	0,94	0,83	1120	0,90	0	0,0	40	328,6	40	328,6	40	328,6	50	410,7	0	0,0	0	0	0	0	
8	431-OA-001-A	MOORING WINDLASS ELECTRIC MOTOR A	D	VFD	480,0	690	0,98	0,80	650	0,90	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0	0	0	
		Total consumption of supplied from 867-EN-S01 (DSWB1A)							**7 370**			***0***		***1815***		***1815***		***1815***		***1237***		***830***		***0***		***0***	
1	312-EM201C	AHDD DRAWWORKS A MOTOR #C	D	VFD	858,0	690	0,94	0,83	1120	0,90	0	0,0	40	328,6	40	328,6	40	328,6	50	410,7	0	0,0	0	0	0	0	
2	312-EM201D	AHDD DRAWWORKS A MOTOR #D	D	VFD	858,0	690	0,94	0,83	1120	0,90	0	0,0	40	328,6	40	328,6	40	328,6	50	410,7	0	0,0	0	0	0	0	
3	312-EM001C	AHD 500 DRAWWORKS MOTOR #C	D	VFD	858,0	690	0,94	0,83	1120	0,90	0	0,0	25	205,4	25	205,4	25	205,4	0	0,0	0	0,0	0	0	0	0	
4	312-EM001D	AHD 500 DRAWWORKS MOTOR #D	D	VFD	858,0	690	0,94	0,83	1120	0,90	0	0,0	25	205,4	25	205,4	25	205,4	0	0,0	0	0,0	0	0	0	0	
5	325-EM101DA	HP MUD PUMP NO. 4, MOTOR A	D	VFD	858,0	690	0,93	0,83	1120	0,90	0	0,0	45	373,6	45	373,6	45	373,6	25	207,6	0	0,0	0	0	0	0	
6	325-EM101DB	HP MUD PUMP NO. 4, MOTOR B	D	VFD	858,0	690	0,93	0,83	1120	0,90	0	0,0	45	373,6	45	373,6	45	373,6	25	207,6	0	0,0	0	0	0	0	
7	431-OA-001-B	MOORING WINDLASS ELECTRIC MOTOR B	D	VFD	480,0	690	0,98	0,80	650	0,90	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0	0	0	
		Total consumption of supplied from 867-EN-S02 (DSWB1B)							**7 370**			***0***		***1815***		***1815***		***1815***		***1237***		***0***		***0***		***0***	
1	325-EM101BA	HP MUD PUMP NO. 2, MOTOR A	D	VFD	858,0	690	0,93	0,83	1120	0,90	0	0,0	45	373,6	45	373,6	45	373,6	25	207,6	0	0,0	0	0	0	0	
2	325-EM101BB	HP MUD PUMP NO. 2, MOTOR B	D	VFD	858,0	690	0,93	0,83	1120	0,90	0	0,0	45	373,6	45	373,6	45	373,6	25	207,6	0	0,0	0	0	0	0	
3	313-EM101	DRILLING MOTOR A (TOP DRIVE A)	D	VFD	740,0	690	0,96	0,81	815	0,90	0	0,0	25	172,7	25	172,7	25	172,7	20	138,2	50	345,4	0	0	0	0	
4	312-EM251A	AHDD DRAWWORKS B MOTOR #A	D	VFD	858,0	690	0,94	0,83	1120	0,90	0	0,0	40	328,6	40	328,6	40	328,6	50	410,7	0	0,0	0	0	0	0	
5	312-EM251B	AHDD DRAWWORKS B MOTOR #B	D	VFD	858,0	690	0,94	0,83	1120	0,90	0	0,0	40	328,6	40	328,6	40	328,6	50	410,7	0	0,0	0	0	0	0	
6	371-EM-001A	CEMENT PUMP A	D	VFD	857,0	690	0,98	0,80	1150	0,90	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0	40	343	
7	431-OA-001-C	MOORING WINDLASS ELECTRIC MOTOR C	D	VFD	480,0	690	0,98	0,80	650	0,90	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0	0	0	
		Total consumption of supplied from 867-EN-S03 (DSWB2A)							**7 095**			***0***		***1577***		***1577***		***1577***		***1375***		***345***		***0***		***343***	
1	325-EM101CA	HP MUD PUMP NO. 3, MOTOR A	D	VFD	858,0	690	0,93	0,83	1120	0,90	0	0,0	45	373,6	45	373,6	45	373,6	25	207,6	50	415,2	0	0	0	0	
2	325-EM101CB	HP MUD PUMP NO. 3, MOTOR B	D	VFD	858,0	690	0,93	0,83	1120	0,90	0	0,0	45	373,6	45	373,6	45	373,6	25	207,6	50	415,2	0	0	0	0	
3	313-EM102	DRILLING MOTOR B (TOP DRIVE B)	D	VFD	740,0	690	0,96	0,81	815	0,90	0	0,0	25	172,7	25	172,7	25	172,7	20	138,2	20	138,2	0	0	0	0	
4	312-EM251C	AHDD DRAWWORKS B MOTOR #C	D	VFD	858,0	690	0,94	0,83	1120	0,90	0	0,0	40	328,6	40	328,6	40	328,6	50	410,7	0	0,0	0	0	0	0	
5	312-EM251D	AHDD DRAWWORKS B MOTOR #D	D	VFD	858,0	690	0,94	0,83	1120	0,90	0	0,0	40	328,6	40	328,6	40	328,6	50	410,7	0	0,0	0	0	0	0	
6	371-EM-001B	CEMENT PUMP B	D	VFD	857,0	690	0,98	0,80	1150	0,90	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0	0	0	
7	431-OA-001-D	MOORING WINDLASS ELECTRIC MOTOR D	D	VFD	480,0	690	0,98	0,80	650	0,90	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0	0	0	
		Total consumption of supplied from 867-EN-S04 (DSWB2B)							**7 095**			***0***		***1577***		***1577***		***1577***		***1375***		***968***		***0***		***0***	
		Total consumption of DRILLING SWITCHBOARDS							**28 930**			***0***		**6 785**		**6 785**		**6 785**		**5 223**		**2 144**		**-**		**343**	

Odfjell GVA 7500 Semi-submersible Drilling Rig
Project NO: 3025

ELECTRICAL LOAD ANALYSIS

S/N	Equipment number	DESCRIPTION	SER. VICE	STAR TER TYPE	CONNECTED LOAD					L.F.				TRANSIT + DP 75%			MOORING + THR ASST 50%			DRILLING + DP 50%			DRILLING + DP 75%			BK REAM'G + DP 75%			WELL CIRC'N AFTER DP MAX SINGLE FAILURE			DEAD SHIP POWER			EMERGENCY MODE			Max Load (A)
					kW	VOLT	EFF	PF	AMP		kW	AMP	kVA	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	
1	873-EN-M02	690V MOTOR CONTROL CENTER - 1600A (MCC11)			1126				1161						489,1	440,9		489,1	440,9	0	481,9	440,9		494,8	452,9		502,0	452,9		565,7	510,6		160,3	139,7		297,8	263,5	473
2	873-EN-M01	690V MOTOR CONTROL CENTER - 1600A (MCC12)			1452				1594						450,5	407,9		615,2	512,7	0	596,8	502,6		612,0	516,2		612,0	516,2		620,8	543,6		121,4	105,8		141,1	123,0	519
3	873-EN-M03	690V MOTOR CONTROL CENTER - 1600A (MCC13)			1120				1167						0,0	0,0		337,7	288,8	0	298,1	290,6		339,8	290,6		364,7	312,2		148,2	126,1		0,0	0,0		0,0	0,0	305
4	873-EN-M04	690V MOTOR CONTROL CENTER - 1250A (MCC14)			750				757						386,8	327,4		386,8	327,4	0	465,0	398,9		465,0	398,9		465,0	398,9		386,8	327,4		0,0	0,0		281,4	225,0	389
5	873-EN-M05	690V MOTOR CONTROL CENTER - 1250A (MCC15)			516				471						442,4	423,9		442,4	423,9	0	448,1	428,5		442,4	423,9		442,4	423,9		141,6	123,1		0,0	0,0		0,5	0,4	375
6	871-EL-S01	230V MAIN SWITCHBOARD (LS 11)													248,7	223,9		248,7	223,9	0	248,7	223,9		248,7	223,9		248,7	223,9		248,7	457,9		27,8	25,1		0,0	223,9	383
7	871-EL-S05	440V MAIN SWITCHBOARD (LS 12)													98,4	82,3		98,4	82,3	0	98,4	82,3		98,4	82,3		98,4	82,3		98,4	82,3		0,0	0,0		0,0	82,3	82
8	875-EL-H11	DUCT HEATER PANEL													67,7	61,0		67,7	61,0	0	67,7	61,0		67,7	61,0		67,7	61,0		67,7	61,0		0,0	0,0		0,0	61,0	57
9	866-ER-001-A	MAIN UPS-1 SYSTEM			194	690	95	0,85	201	1,00	204,2	201,0	240,2	50	120	102,1	50	120	102,1	50	120	102,1	50	120	102,1	50	120	102,1	100	240	204,2	0	0	0	100	240	204	201
10	361-EN201	SOFT START KNUCLE BOOM CRANE 2	D	FDR	485	690	95	0,80	534	0,70	357,4	373,8	446,7	0	0	0,0	0	0	0,0	10	45	35,7	10	45	35,7	10	45	35,7	0	0	0,0	0	0	0	0	0	0	37
		Total consumption of 871-EN-S01 (LS 1)													***2304***	***2069***		***2806***	***2463***		***2870***	***2566***		***2934***	***2587***		***2966***	***2609***		***2518***	***2436***		***309***	***271***		***961***	***1183***	
1	873-EN-M06	690V MOTOR CONTROL CENTER - 1600A (MCC21)			1445				1440						555,2	510,0		555,2	510,0	0	670,4	608,0		683,3	619,9	0	683,3	619,9		690,5	634,8		0,0	0,0		193,9	173,8	583
2	873-EN-M07	690V MOTOR CONTROL CENTER - 1600A (MCC22)			1303				1452						333,4	302,8		494,1	403,8	0	451,5	393,7		466,7	407,3	0	491,0	407,3		502,1	435,5		0,0	0,0		120,5	103,5	420
3	873-EN-M08	690V MOTOR CONTROL CENTER - 1600A (MCC23)			1368				1414						0,0	0,0		371,2	318,5	0	373,4	320,3		373,4	320,3	0	398,3	342,0		304,4	258,8		0,0	0,0		2,1	1,8	333
4	873-EN-M09	690V MOTOR CONTROL CENTER - 1250A (MCC24)			837				835						428,1	363,1		428,1	363,1	0	506,3	434,6		506,3	434,6	0	506,3	434,6		428,1	363,1		0,0	0,0		280,6	224,4	424
5	871-EL-S02	230V MAIN SWITCHBOARD (LS 21)													260,1	234,1		260,1	234,1	0	260,1	234,1		260,1	234,1	0	260,1	234,1		260,1	457,9		0,0	0,0		0,0	234,1	383
6	871-EL-S06	440V MAIN SWITCHBOARD (LS 22)													135,4	111,1		135,4	111,1	0	135,4	111,1		135,4	111,1	0	135,4	111,1		135,4	111,1		0,0	0,0		0,0	111,1	113
7	875-EL-H12	DUCT HEATER PANEL													69,4	62,4		69,4	62,4	0	69,4	62,4		69,4	62,4	0	111,0	99,9		69,4	62,4		0,0	0,0		0,0	62,4	93
8	866-ER-001-B	MAIN UPS-2 SYSTEM			194	690	95	0,85	201	1,00	204,2	201,0	240,2	50	120	102,1	50	120	102,1	50	120	102,1	50	120	102,1	50	120	102,1	100	240	204,2	0	0	0	0	0	0	201
9	361-EN101	SOFT START KNUCLE BOOM CRANE 1	D	FDR	485	690	95	0,80	534	0,70	357,4	373,8	446,7	0	0	0,0	0	0	0,0	10	45	35,7	10	45	35,7	10	45	35,7	20	89	71,5	0	0	0	0	0	0	75
10	362-EN201	RISER GANTRY CRANE	D	FDR	185	690	0,95	0,87	187	0,80	155,8	149,8	179,1	0	0	0,0	0	0	0,0	20	36	31,2	0	20	0,0	20	36	31,2	0	0	0,0	0	0	0	0	0	0	30
		Total consumption of 871-EN-S02 (LS 2)													***1902***	***1686***		***2434***	***2105***		***2667***	***2333***		***2679***	***2338***		***2786***	***2418***		***2726***	***2599***		***0***	***0***		***597***	***911***	
1	873-EN-M11	690V MOTOR CONTROL CENTER - 1600A (MCC31)			1281				1308						403,0	364,0		403,0	364,0	0	403,0	364,0		416,0	376,0		416,0	376,0		441,5	399,5		0,0	0,0		761,1	666,8	637
2	873-EN-M10	690V MOTOR CONTROL CENTER - 1600A (MCC32)			1609				1673						434,6	391,6		502,5	443,8	0	484,1	433,7		499,5	447,3		499,5	447,3		536,4	484,2		0,0	0,0		139,9	123,6	449
3	873-EN-M16	690V MOTOR CONTROL CENTER - 1600A (MCC33)			1065				1097						26,9	21,6		299,4	253,0	0	302,5	255,5		302,5	255,5		314,9	266,4		205,8	170,6		0,0	0,0		49,7	43,0	264
4	873-EN-M12	690V MOTOR CONTROL CENTER - 1250A (MCC34)			880				910						557,8	471,4		557,8	471,4	0	557,8	471,4		557,8	471,4		557,8	471,4		557,8	471,4		0,0	0,0		279,1	223,6	467
5	871-EL-S03	230V MAIN SWITCHBOARD (LS 31)													214,7	193,2		214,7	193,2	0	214,7	193,2		214,7	193,2		214,7	193,2		214,7	193,2		0,0	0,0		0,0	193,2	180
6	875-EN-P03	440V POWER PANEL FOR FAN COIL UNIT													44,7	40,3		44,7	40,3	0	44,7	40,3		44,7	40,3		44,7	40,3		44,7	40,3		0,0	0,0		0,0	40,3	37
7	361-EN202	SOFT START KNUCLE BOOM CRANE 2	D	FDR	485	690	95	0,80	534	0,70	357,4	373,8	446,7	0	0	0,0	0	0	0,0	10	45	35,7	10	45	35,7	10	45	35,7	0	0	0,0	0	0	0	0	0	0	37
8	311-ET100A	XFMR FOR GUIDE LINE WINCH NO.1			420	690	98	0,85	422	0,90	385,7	379,7	453,8	0	0,0	0,0	5	22,7	19,3	5	22,7	19,3	5	23	19,3	5	23	19,3	0	0,0	0,0	0	0,0	0,0	0	0,0	0,0	19
9	721-PA-006	SOFT START FOR BOOSTER PUMP	M	FDR	256	690	96	0,89	251	0,70	186,7	175,5	209,8	0	0,0	0,0	0	0,0	0,0	0	0,0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0,0	0	0,0	0,0	0	0,0	0,0	0
		Total consumption of 871-EN-S03 (LS 3)													***1682***	***1482***		***2045***	***1785***		***2074***	***1813***		***2103***	***1839***		***2115***	***1850***		***2001***	***1759***		***0***	***0***		***1230***	***1291***	
1	873-EN-M13	690V MOTOR CONTROL CENTER - 1600A (MCC41)			1457				1450						475,7	437,4		475,7	437,4	0	475,7	437,4		488,7	449,4		488,7	449,4		514,3	473,0		0,0	0,0		653,7	573,8	547
2	873-EN-M14	690V MOTOR CONTROL CENTER - 1600A (MCC42)			1449				1507						407,3	367,2		431,8	383,1	0	413,5	373,0		428,8	386,7		428,8	386,7		510,1	460,7		0,0	0,0		122,7	107,5	427
3	873-EN-M15	690V MOTOR CONTROL CENTER - 1600A (MCC43)			1271				1321						26,9	21,6		423,6	354,7	0	488,5	409,8		488,5	409,8		501,0	420,7		394,3	329,3		0,0	0,0		40,0	32,0	419
4	873-EN-M17	690V MOTOR CONTROL CENTER - 1250A (MCC44)			1019				1075						707,4	594,4		707,4	594,4	0	707,4	594,4		707,4	594,4		707,4	594,4		707,4	594,4		0,0	0,0		279,1	223,6	592
5	871-EL-S04	230V MAIN SWITCHBOARD (LS 41)													246,4	221,7		253,6	228,3	0	246,4	221,7		253,6	228,3		253,6	228,3		253,6	228,3		0,0	0,0		0,0	228,3	212
6	875-EN-P04	440V POWER PANEL FOR FAN COIL UNIT													40,1	32,1		40,1	32,1	0	40,1	32,1		40,1	32,1		40,1	32,1		40,1	32,1		0,0	0,0		0,0	32,1	34
7	361-EN102	SOFT START KNUCLE BOOM CRANE 1	D	FDR	485	690	95	0,80	534	0,70	357,4	373,8	446,7	0	0	0,0	0	0	0,0	10	45	35,7	10	45	35,7	10	45	35,7	0	0	0,0	0	0	0	0	0	0	37
8	866-ET-001	BYPASS TRANSFORMER FOR MAIN UPS 1 & 2	M	FDR	100	690	95	1,00	88	0,90	94,7	79,3	94,7	0	0,0	0,0	0	0,0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	20	19	18,9	0	0,0	0,0	0	0,0	0,0	17
9	311-ET100B	XFMR FOR GUIDE LINE WINCH NO.2			420	690	98	0,85	422	0,90	385,7	379,7	453,8	0	0,0	0,0	5	22,7	19,3	5	23	19,3	5	23	19,3	5	23	19,3	0	0	0,0	0	0,0	0,0	0	0,0	0,0	19
		Total consumption of 871-EN-S04 (LS 4)													***1904***	***1674***		***2355***	***2049***		***2439***	***2123***		***2475***	***2156***		***2487***	***2167***		***2439***	***2137***		***0***	***0***		***1095***	***1197***	

Odfjell G' F
Project NO: 3025

ELECTRICAL LOAD ANALYSIS

S/N	Equipment number	DESCRIPTION	MCC	ROOM NO	SER-VICE	STARTER TYPE	CONNECTED LOAD					L.F.				TRANSIT + DP 75%			MOORING + THR ASST 50%			DRILLING + DP 50%			DRILLING + DP 75%			BK REAM'G + DP 75%			WELL CIRC'N AFTER DP MAX SINGLE FAILURE			DEAD SHIP POWER			EMERGENCY MODE			REMARK	Reference Low Speed Rating
							kW	VOLT	EFF	PF	AMP		kW	AMP	kVA	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW		
MARINE, 690VAC MCC 11, 873-EN-M02																																									
1	501-IE-001-A	LIFE BOAT DAVIT NO.1 CONTROL PANEL	MCC11	N/A	M	FDR	34,5	690	0,90	0,85	37,7	0,80	30,7	30,2	36,1	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
2	502-IE-001-A	NO1. ESCAPE CHUTE SYSTEM	MCC11	F/P/UPPER	M	FDR	8,6	690	0,90	0,85	9,4	0,80	7,6	7,5	9,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
3	561-MF-002-A	TRANSFORMER (561-ET-002-A) FOR LIFT IN ACCOMODATION	MCC11	N/A	M	FDR	16,9	690	0,98	0,85	17,0	0,80	13,8	13,6	16,2	10	2	1,4	10	2	1,4	10	2	1,4	10	2	1,4	10	2	1,4	10	2	1,4	0	0	0	0	0	0		
4	566-PX-001	CONTROL PANEL (566-EC-001) FOR HELI-FUEL PUMP UNIT	MCC11	N/A	M	FDR	6,8	690	0,86	0,69	9,5	0,80	6,3	7,6	9,1	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
5	571-PA-101-A	HEATING WATER CIRCULATION PUMP	MCC11	F/P/M107	M	DOL	11,0	690	0,89	0,91	11,4	0,80	9,9	9,1	10,9	50	5	4,9	50	5	4,9	50	5	4,9	50	5	4,9	50	5	4,9	10	1	1,0	0	0	0	0	0	0		
6	581-FC-001-A	CALORIFIER	MCC11	F/S/M129	M	FDR	130,0	690	0,95	0,84	136,3	0,80	109,5	109,0	130,3	25	33	27,4	25	33	27,4	25	33	27,4	25	33	27,4	25	33	27,4	25	33	27,4	0	0	0	0	0	0		
7	581-PA-002-A	HOT WATER CIRCULATION PUMP	MCC11	F/S/M129	M	DOL	2,5	690	0,83	0,82	3,1	0,80	2,4	2,5	3,0	50	1	1,2	50	1	1,2	50	1	1,2	50	1	1,2	50	1	1,2	100	3	2,4	0	0	0	0	0	0		
9	582-VV-001	CONTROL PANEL (582-IB-001) FOR SEWAGE TREATMENT PLANT	MCC11	F/P/50P	M	FDR	14,8	690	0,95	0,60	21,8	1,00	15,6	21,8	26,0	10	3	1,6	10	3	1,6	10	3	1,6	10	3	1,6	10	3	1,6	10	3	1,6	0	0	0	0	0	0		
10	601-EC-001-A	MAIN ENGINE A TURNING GEAR UNIT	MCC11	F/P/M110	M	FDR	2,5	690	0,63	0,67	5,0	0,80	3,2	4,0	4,7	25	1	0,8	25	1	0,8	25	1	0,8	0	0	0,0	0	0	0,0	0	0	0,0	100	5	3,2	0	0	0,0		
11	601-EC-001-B	MAIN ENGINE B TURNING GEAR UNIT	MCC11	F/P/M110	M	FDR	2,5	690	0,63	0,67	5,0	0,80	3,2	4,0	4,7	25	1	0,8	25	1	0,8	25	1	0,8	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0		
12	601-EC-002-A	MAIN ENGINE A PRE-LUBRICATION OIL PUMP	MCC11	F/P/M110	M	FDR	22,0	690	0,94	0,82	24,0	1,00	23,4	24,0	28,7	25	7	5,9	25	7	5,9	25	7	5,9	25	7	5,9	25	7	5,9	25	7	5,9	100	29	23,4	0	0	0		
13	601-EC-002-B	MAIN ENGINE B PRE-LUBRICATION OIL PUMP	MCC11	F/P/M110	M	FDR	22,0	690	0,94	0,82	24,0	1,00	23,4	24,0	28,7	25	7	5,9	25	7	5,9	25	0	5,9	25	0	5,9	25	7	5,9	25	0	0,0	0	0	0,0	0	0	0		
14	635-EC-001-H	THRUSTER H LUBRICATION UNIT	MCC11	A/S/30S	T	FDR	5,2	690	0,88	0,91	5,4	0,80	4,7	4,3	5,2	100	5	4,7	100	5	4,7	100	5	4,7	100	5	4,7	100	5	4,7	100	5	4,7	0	0	0	0	0	0		
15	635-EC-002-HA	THRUSTER H HYDRAULIC POWER PACK 1	MCC11	A/S/30S	T	FDR	90,0	690	0,88	0,93	92,1	0,80	81,8	73,7	88,1	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	0	0	0	0	0	0		
16	635-EC-002-HB	THRUSTER H HYDRAULIC POWER PACK 2	MCC11	A/S/30S	T	FDR	90,0	690	0,88	0,93	92,1	0,80	81,8	73,7	88,1	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	0	0	0	0	0	0		
17	702-CF-001-A	FUEL OIL SEPERATOR	MCC11	F/P/M131	M	FDR	175,0	690	0,95	0,94	164,0	0,80	147,4	131,2	156,8	50	78	73,7	50	78	73,7	50	78	73,7	50	78	73,7	50	78	73,7	50	78	73,7	0	0	0,0	0	0	0		
18	703-PG-003-A	F.O. CIRCULATION PUMP A	MCC11	F/P/M131	M	DOL	8,6	690	0,90	0,91	8,8	0,80	7,7	7,1	8,4	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	100	8	7,7	100	9	9		
19	711-PG-001-A	DIRTY LUBE OIL TRANSFER PUMP	MCC11	F/P/M110	M	DOL	2,5	690	0,84	0,86	2,9	0,80	2,4	2,3	2,8	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0		
20	721-PA-001-B	FWD MAIN SEA COOLING WATER PUMP	MCC11	F/P/8P	M	SFT	152,0	690	0,92	0,90	154,2	0,80	132,7	123,4	147,4	50	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	100	147	132,7	0	0	0,0	100	169	152		
21	721-PA-005-H	THRUSTER SEA WATER COOLING PUMP	MCC11	A/S/30S	T	DOL	12,7	690	0,88	0,89	13,5	0,80	11,5	10,8	12,9	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	0	0	0,0	0	0	0		
22	722-PA-001-B	FRESH WATER COOLING PUMP	MCC11	F/P/M107	M	DOL	63,0	690	0,93	0,89	63,83	0,80	54,3	51,1	61,0	25	15	13,6	25	15	13,6	25	15	13,6	50	31	27,2	50	31	27,2	50	31	27,2	0	0	0,0	0	0	0		
23	722-IF-001-A	LT-PREHEATING UNIT	MCC11	F/P/M110	M	FDR	3,0	690	0,70	0,80	4,5	1,00	4,3	4,5	5,4	25	1	1,1	25	1	1,1	25	1	1,1	25	1	1,1	25	1	1,1	25	1	1,1	100	5	4,3	0	0	0		
24	722-IF-002-A	HT-PREHEATING UNIT	MCC11	F/P/M110	M	FDR	108,8	690	0,95	0,90	106,4	1,00	114,5	106,4	127,2	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	80	102	91,6	0	0	0		
25	801-PA-001-A	BALLAST PUMP, SUBMERSIBLE A	MCC11	F/S/8P	M	DOL	84,0	690	0,94	0,87	85,9	0,80	71,5	68,8	82,2	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	100	97	84		
26	803-PG-101-A	SLUDGE PUMP	MCC11	F/P/M131	M	DOL	2,2	690	0,84	0,74	3,0	0,80	2,1	2,4	2,8	5	0	0,1	5	0	0,1	5	0	0,1	5	0	0,1	5	0	0,1	5	0	0,1	0	0	0,0	100	3	2		
27	803-VA-001	BILGE WATER SEPERATOR, LOWER DECK	MCC11	F/P/M107	M	FDR	3,0	690	0,95	0,80	3,3	0,80	2,5	2,6	3,2	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0		
28	861-PA-001-B	11KV GENERATOR-B DE L/O PUMP	MCC11	F/P/M110	M	DOL	1,75	690	0,84	0,80	2,2	0,80	1,7	1,7	2,1	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	0	0	0	100	2	2		
29	861-PA-002-B	11KV GENERATOR-B NDE L/O PUMP	MCC11	F/P/M110	M	DOL	1,75	690	0,84	0,80	2,2	0,80	1,7	1,7	2,1	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	0	0	0	100	2	2		
30	865-ET-T04-HA	THRUSTER XFMR H HEAT EXCHAGER FAN	MCC11	A/S/30S	T	FDR	4,0	690	0,89	0,84	4,5	0,80	3,6	3,6	4,3	50	2	1,8	50	2	1,8	50	2	1,8	50	2	1,8	50	2	1,8	50	2	1,8	0	0	0	0	0	0		
31	866-ER-UC1	11KV SWBD HS1 UPS FOR CONTROL POWER	MCC11	F/P/M114	M	FDR	13,8KVA	690	0,98	0,85	11,6	0,80	9,6	9,4	11,3	100	11	9,6	100	11	9,6	100	11	9,6	100	11	9,6	100	11	9,6	100	11	9,6	100	11	10	100	16	13		
32	867-EH-001-HA	THRUSTER VFD H WATER COOLING UNIT	MCC11	A/S/30S	T	FDR	9,2	690	0,90	0,89	9,6	0,80	8,2	7,7	9,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	0	0	0	0	0	0		
33	867-EH-001-HB	THRUSTER VFD H PRECHARGING AND MISC. LV LOADS	MCC11	A/S/30S	T	FDR	10,2	690	0,98	0,85	10,2	0,50	5,2	5,1	6,1	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	0	0	0	0	0	0		
34	875-EN-P11	PANEL BOARD FOR WATER TIGHT DOOR	MCC11	M101	M	FDR	6,0	690	0,77	0,68	9,6	0,60	4,7	5,8	6,9	100	7	4,7	100	7	4,7	100	7	4,7	100	7	4,7	100	7	4,7	100	7	4,7	0	0	0	0	0	0		
35	562-IF-001	MOVABLE PLATFORM MAIN CONTROL PANEL	MCC11	UPPER	M	FDR	5,0	690	0,86	0,69	7,0	0,80	4,6	5,6	6,7	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0		
		Total consumtion of MCC 11					*1 126*				1 161		1 007	960	1 148		*489*	*441*		*489*	*441*		*482*	*441*		*495*	*453*		*502*	*453*		*566*	*511*		*160*	*140*		*298*	*264*		
MARINE, 690VAC MCC 12, 873-EN-M01																																									
1	324-EM109	COLUMN WBM TRANSFER PUMP NO. 1 DUTY	MCC12	42P	D	DOL	98,0	690	0,95	0,86	100,2	0,90	92,6	90,1	107,7	0	0	0,0	20	22	18,5	20	22	18,5	20	22	18,5	20	22	18,5	0	0	0,0	0	0	0	0	0	0		
2	324-EM112	COLUMN OBM TRANSFER PUMP NO. 2 STANDBY	MCC12	42S	D	DOL	98,0	690	0,95	0,86	100,2	0,90	92,6	90,1	107,7	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
3	324-EM151	AGITATOR, STORAGE TANK NO. 1 (WBM, COLUMN)	MCC12	46P	D	DOL	30,0	690	0,82	0,55	56,0	0,80	29,4	44,8	53,5	0	0	0,0	50	27	14,7	50	27	14,7	50	27	14,7	50	27	14,7	25	13	7,4	0	0	0	0	0	0		
4	324-EM152	AGITATOR, STORAGE TANK NO. 2 (WBM, COLUMN)	MCC12	44P	D	DOL	30,0	690	0,82	0,55	56,0	0,80	29,4	44,8	53,5	0	0	0,0	50	27	14,7	50	27	14,7	50	27	14,7	50	27	14,7	25	13	7,4	0	0	0	0	0	0		
5	324-EM153	AGITATOR, STORAGE TANK NO. 3 (WBM, COLUMN)	MCC12	42P	D	DOL	30,0	690	0,82	0,55	56,0	0,80	29,4	44,8	53,5	0	0	0,0	50	27	14,7	50	27	14,7	50	27	14,7	50	27	14,7	25	13	7,4	0	0	0	0	0	0		
6	324-EM154	AGITATOR, STORAGE TANK NO. 4 (WBM, COLUMN)	MCC12	42P	D	DOL	30,0	690	0,82	0,55	56,0	0,80	29,4	44,8	53,5	0	0	0,0	50	27	14,7	50	27	14,7	50	27	14,7	50	27	14,7	25	13	7,4	0	0	0	0	0	0		
7	327-EM101	TRANSFER PUMP NO.1 - DRILL WATER DUTY	MCC12	F/P/8P	D	DOL	63,0	690	0,97	0,95	57,0	0,90	58,3	51,3	61,3	0	0	0,0	10	6	5,8	10	6	5,8	10	6	5,8	10	6	5,8	10	6	5,8	0	0	0	0	0	0		
8	327-EM103	SERVICE PUMP NO.1 - DRILL WATER DUTY	MCC12	F/P/8P	D	DOL	25,0	690	0,99	0,99	21,4	0,90	22,8	19,3	23,0	0	0	0,0	50	12	11,4	50	12	11,4	50	12	11,4	50	12	11,4	50	12	11,4	0	0	0	0	0	0		
9	581-PA-001-A	POTABLE WATER SERVICE PUMP	MCC12	F/P/8P	M	DOL	17,3	690	0,89	0,90	18,1	0,80	15,6	14,5	17,3	50	9	7,8	50	9	7,8	50	9	7,8	50	9	7,8	50	9	7,8	100	17	15,6	0	0	0	0	0	0		
10	701-PG-001-A	F.O. TRANSFER PUMP	MCC12	F/P/8P	M	DOL	17,3	690	0,92	0,84	18,7	0,80	15,0	15,0	17,9	20	4	3,0	20	4	3,0	20	4	3,0	20	4	3,0	20	4	3,0	20	4	3,0	100	18	15	100	21	17		
11	701-PG-002-A	F.O. SUPPLY PUMP	MCC12	F/P/M131	M	DOL	1,7	690	0,81	0,77	2,3	0,80	1,7	1,8	2,2	20	0	0,3	20	0	0,3	20	0	0,3	20	0	0,3	20	0	0,3	40	1	0,7	100	2	2	100	2	2		
12	703-PG-003-B	F.O. CIRCULATION PUMP B	MCC12	F/P/M131	M	DOL	8,6	690	0,90	0,91	8,8	0,80	7,7	7,1	8,4	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	0	0	0	0	0	0		
13	721-PA-001-A	FWD MAIN SEA COOLING WATER PUMP	MCC12	F/P/8P	M	SFT	152,0	690	0,92	0,90	154,2	0,80	132,7	123,4	147,4	50	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	100	147	132,7	0	0	0	0	0	0		
14	721-PA-005-B	THRUSTER SEA WATER COOLING PUMP	MCC12	F/P/11P	T	DOL	12,7	690	0,88	0,89	13,5	0,80	11,5	10,8	12,9	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	0	0	0	0	0	0		
15	722-PA-001-A	FRESH WATER COOLING PUMP	MCC12	F/P/M107	M	DOL	63,0	690	0,93	0,89	63,83	0,80	54,3	51,1	61,0	25	15	13,6	25	15	13,6	25	15	13,6	50	31	27,2	50	31	27,2	50	31	27,2	100	61	54	100	71	63		
16	733-KC-001-A	SERVICE AIR COMPRESSOR	MCC12	A/P/M135B	M	FDR	151,0	690	0,88	0,86	167,9	0,80	137,3	134,3	160,6	50	80	68,6	50	80	68,6	50	80	68,6	50	80	68,6	50	80	68,6	50	80	68,6	0	0	0	0	0	0		
17	801-PA-001-D	BALLAST PUMP, SUBMERSIBLE D	MCC12	F/S/8S	M	DOL	84,0	690	0,94	0,87	85,9	0,80	71,5	68,8	82,2	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0		
18	803-PA-001-A	BILGE PUMP, PONTOON	MCC12	F/P/8P	M	DOL	12,7	690	0,88	0,90	13,4	0,80	11,5	10,7	12,8	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
19	804-PA-101-A	CLEAN SUMP TRANSFER PUMP	MCC12	F/P/8P	M	DOL	51,8	690	0,92	0,87	54,0	0,80	44,9	43,2	51,7	5	3	2,2	5	3	2,2	5	3	2,2	5	3	2,2	5	3	2,2	5	3	2,2	0	0	0	0	0	0		
20	804-PG-003-A	DRAIN TRANSFER PUMP	MCC12	F/P/42P	M	DOL	4,0	690	0,82	0,82	4,98	0,80	3,9	4,0	4,8	5	0	0,2	5	0	0,2	5	0	0,2	5	0	0,2	5	0	0,2	5	0	0,2	0	0	0	0	0	0		
21	804-PG-003-B	DRAIN TRANSFER PUMP	MCC12	F/P/42P	M	DOL	4,0	690	0,82	0,82	4,98	0,80	3,9	4,0	4,8	5	0	0,2	5	0	0,2	5	0	0,2	5	0	0,2	5	0	0,2	5	0	0,2	0	0	0	0	0	0		
22	861-PA-001-A	11KV GENERATOR-A DE L/O PUMP	MCC12	F/P/M110	M	DOL	1,75	690	0,84	0,80	2,2	0,80	1,7	1,7	2,1	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	0	0	0	0	0	0		
23	861-PA-002-A	11KV GENERATOR-A NDE L/O PUMP	MCC12	F/P/M110	M	DOL	1,75	690	0,84	0,80	2,2	0,80	1,7	1,7	2,1	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	0	0	0	0	0	0		
24	875-EN-P13	PANEL BOARD FOR WATER TIGHT DOOR (REDUNDANCY)	MCC12	M137	M	FDR	7,3	690	0,81	0,72	10,5	0,60	5,4	6,3	7,5	100	8	5,4	100	8	5,4	100	8	5,4	100	8	5,4	100	8	5,4	100	8	5,4	0	0	0	0	0	0		
	875-EN-M12, Consumption of Panel board 12																																								
1	278-EU-002-A	ICCP POWER CONTROL UNIT	MPB12	11P	M	FDR	10,5	690	0,97	0,95	9,5	0,50	5,4	4,8	5,7	100	6	5,4	100	6	5,4	100	6	5,4	100	6	5,4	100	6	5,4	100	6	5,4	0	0	0	0	0	0		
2	431-IC-004-A	START CABINET FOR WINDLASS	MPB12	M201	M	FDR	13,3	690	0,63	0,55	32,0	0,80	16,8	25,6	30,6	0	0	0,0	60	18	10,1	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
3	561-ET-001-A	TR FOR LIFT IN PORT COLUMN	MPB12	81P	M	FDR	60,0	690	0,95	0,88	60,1	0,80	50,5	48,0	57,4	10	6	5,1	10	6	5,1	10	6	5,1	10	6	5,1	10	6	5,1	10	6	5,1	0	0	0	0	0	0		
4	635-EC-001-B	THRUSTER B LUBRICATION UNIT	MPB12	F/P/11P	T	FDR	5,2	690	0,88	0,91	5,4	0,80	4,7	4,3	5,2	100	5	4,7	100	5	4,7	100	5	4,7	100	5	4,7	100	5	4,7	100	5	4,7	0	0	0	0	0	0		
5	635-EC-002-BA	THRUSTER B HYDRAULIC POWER PACK 1	MPB12	F/P/11P	T	FDR	90,0	690	0,88	0,93	92,1	0,80	81,8	73,7	88,1	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	0	0	0	0	0	0		
6	635-EC-002-BB	THRUSTER B HYDRAULIC POWER PACK 2	MPB12	11P	T	FDR	90,0	690	0,88	0,93	92,1	0,80	81,8	73,7	88,1	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	0	0	0	0	0	0		
7	731-KB-001-A	STARTING AIR COMPRESSOR	MPB12	A/P/135B	M	FDR	23,0	690	0,94	0,92	22,3	0,80	19,6	17,8	21,3	5	1	1,0	5	1	1,0	5	1	1,0	5	1	1,0	5	1	1,0	10	2	2,0	100	21	20	100	25	23		
8	831-IH-001-AA	HPP MOTOR FOR REMOTE CONTROL VALVE	MPB12	A/P/M103	M	FDR	18,0	690	0,95	0,80	19,8	0,80	15,2	15,9	18,9	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	100	19	15	100	23	18		
9	831-IH-001-BB	HPP MOTOR FOR REMOTE CONTROL VALVE	MPB12	F/S/126	M	FDR	18,0	690	0,95	0,80	19,8	0,80	15,2	15,9	18,9	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	0	0	0	0	0	0		
10	865-ET-T04-BA	THRUSTER XFMR B HEAT EXCHAGER FAN	MPB12	F/P/11P	T	FDR	3,5	690	0,89	0,84	3,9	0,80	3,1	3,1	3,7	50	2	1,6	50	2	1,6	50	2	1,6	50	2	1,6	50	2	1,6	50	2	1,6	0	0	0	0	0	0		
11	867-EH-001-BA	THRUSTER VFD B WATER COOLING UNIT	MPB12	F/P/11P	T	FDR	9,2	690	0,90	0,89	9,6	0,80	8,2	7,7	9,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	0	0	0	0	0	0		
12	867-EH-001-BB	THRUSTER VFD B PRECHARGING AND MISC. LV LOADS	MPB12	F/P/11P	T	FDR	10,2	690	0,98	0,85	10,2	0,50	5,2	5,1	6,1	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	0	0	0	0	0	0		
13	865-ET-T10-C	SMALL POWER TRANSFORMER 690V/400V FOR HEAT TRACING, 100KVA	MPB22	M213	M	FDR	100,0	690	1,00	1,00	83,7	0,80	85,0	71,1	85,0	40	34	34,0	40	34	34,0	40	34	34,0	40	34	34,0	40	34	34,0	40	34	34,0	0	0	0	0	0	0		
14	816-IF-001	LCP FOR HELI DECK	MPB22		M	FDR	5,8	690	1,00	1,00	4,9	0,80	4,6	3,9	4,6	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
		Total consumption of MCC 12					*1 452*				1 594		1 302	1 299	1 553		*450*	*408*		*615*	*513*		*597*	*503*		*612*	*516*		*612*	*516*		*621*	*544*		*121*	*106*		*141*	*123*		
DRILLING, 690VAC MCC 13, 873-EN-M03																																									
2	312-EM002A	AHD DRAWWORKS AW BLOWER MOTOR #A	MCC13	N/A	D	DOL	63,0	690	0,93	0,87	65,2	0,80	54,2	52,1	62,3	0	0	0,0	30	19	16,3	30	19	16,3	30	19	16,3	50	31	27,1	0	0	0,0	0	0	0	0	0	0		
3	312-EM003A	AHD DRAWWORKS AW HPU MOTOR #A	MCC13	N/A	D	DOL	4,0	690	0,89	0,85	4,4	0,70	3,1	3,1	3,7	0	0	0,0	10	0	0,3	10	0	0,3	10	0	0,3	10	0	0,3	0	0	0,0	0	0	0	0	0	0		
4	312-EM004A	AHD DRAWWORKS AW LUBE OIL MOTOR #A	MCC13	N/A	D	DOL	5,5	690	0,90	0,87	5,9	0,70	4,3	4,1	4,9	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
5	312-EM202A	AHD D1 DRAWWORKS MW BLOWER MOTOR #A	MCC13	N/A	D	DOL	63,0	690	0,93	0,87	65,2	0,80	54,2	52,1	62,3	0	0	0,0	30	19	16,3	30	19	16,3	30	19	16,3	50	31	27,1	0	0	0,0	0	0	0	0	0	0		
6	312-EM203A	AHD D1 DRAWWORKS MW HPU MOTOR #A	MCC13	N/A	D	DOL	4,0	690	0,89	0,85	4,4	0,70	3,1	3,1	3,7	0	0	0,0	100	4	3,1	100	4	3,1	100	4	3,1	100	4	3,1	0	0	0,0	0	0	0	0	0	0		
7	312-EM204A	AHD D1 DRAWWORKS MW LUBE OIL MOTOR #A	MCC13	N/A	D	DOL	5,5	690	0,90	0,87	5,9	0,70	4,3	4,1	4,9	0	0	0,0	100	5	4,3	100	5	4,3	100	5	4,3	100	5	4,3	0	0	0,0	0	0	0	0	0	0		
8	874-JB-008	POWER J/B FOR WIRE LINE UNIT (ONCC)	MCC13	N/A	D	FDR	75,0	690	0,89	0,85	83,0	0,80	67,4	66,4	79,3	0	0	0,0	20	16	13,5	20	16	13,5	20	16	13,5	20	16	13,5	0	0	0,0	0	0	0	0	0	0		
9	874-JB-010	POWER J/B FOR WIRE LINE POWER PACK, EHPS	MCC13	N/A	D	FDR	96,0	690	0,89	0,85	106,2	0,80	86,3	84,9	101,5	0	0	0,0	20	20	17,3	20	20	17,3	20	20	17,3	20	20	17,3	0	0	0,0	0	0	0	0	0	0		

Odfjell G' F
Project NO: 3025

ELECTRICAL LOAD ANALYSIS

S/N	Equipment number	DESCRIPTION	MCC	ROOM NO	SER-VICE	STARTER TYPE	CONNECTED LOAD kW	VOLT	EFF	PF	AMP	L.F.	kW	AMP	kVA	TRANSIT + DP 75% DF	KVA	kW	MOORING + THR ASST 50% DF	KVA	kW	DRILLING + DP 50% DF	KVA	kW	DRILLING + DP 75% DF	KVA	kW	BK REAM'G + DP 75% DF	KVA	kW	WELL CIRC'N AFTER DP MAX SINGLE FAILURE DF	KVA	kW	DEAD SHIP POWER DF	KVA	kW	EMERGENCY MODE DF	KVA	kW	REMARK	Reference Low Speed Rating
10	324-EM101	MUD MIX PUMP NO.1 - BRINE/WBM DUTY	MCC13	M151	D	DOL	67,0	690	0,95	0,86	68,5	0,90	63,3	61,6	73,7	0	0	0,0	20	15	12,7	20	15	12,7	20	15	12,7	20	15	12,7	20	15	12,7	0	0	0	0	0	0		
11	324-EM103	MUD TRANSFER PUMP NO.1 - BRINE/WBM DUTY	MCC13	M151	D	DOL	67,0	690	0,95	0,86	68,5	0,90	63,3	61,6	73,7	0	0	0,0	20	15	12,7	20	15	12,7	20	15	12,7	20	15	12,7	0	0	0,0	0	0	0	0	0	0		
12	324-EM139	WASHING MACHINE PUMP WBM STORAGE	MCC13	N/A	D	DOL	9,2	690	0,83	0,82	11,3	0,70	7,7	7,9	9,5	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
13	325-EM102A	HP MUD PUMP NO. 1, FAN A	MCC13	M151	D	DOL	13,0	690	0,92	0,83	14,2	0,80	11,3	11,4	13,6	0	0	0,0	25	3	2,8	25	3	2,8	25	3	2,8	25	3	2,8	50	7	5,7	0	0	0	0	0	0		
14	325-EM103A	HP MUD PUMP NO. 1, FAN B	MCC13	M151	D	DOL	13,0	690	0,92	0,83	14,2	0,80	11,3	11,4	13,6	0	0	0,0	25	3	2,8	25	3	2,8	25	3	2,8	25	3	2,8	50	7	5,7	0	0	0	0	0	0		
15	325-EM104A	HP MUD PUMP NO. 1, LINER SPRAY PUMP MOTOR	MCC13	M151	D	DOL	2,3	690	0,83	0,82	2,8	0,60	1,6	1,7	2,0	0	0	0,0	100	2	1,6	100	2	1,6	100	2	1,6	100	2	1,6	50	1	0,8	0	0	0	0	0	0		
16	325-EM105A	HP MUD PUMP NO. 1, LUBE OIL MOTOR	MCC13	M151	D	DOL	1,1	690	0,78	0,80	1,5	0,60	0,8	0,9	1,1	0	0	0,0	100	1	0,8	100	1	0,8	100	1	0,8	100	1	0,8	50	1	0,4	0	0	0	0	0	0		
17	325-EM111	MUD CHARGE PUMP NO. 1 DUTY	MCC13	M151	D	DOL	52,0	690	0,95	0,83	55,4	0,80	43,9	44,3	52,9	0	0	0,0	70	37	30,7	70	37	30,7	70	37	30,7	70	37	30,7	35	19	15,4	0	0	0	0	0	0		
18	325-EM115	MUD CHARGE PUMP NO. 5 DUTY	MCC13	M151	D	DOL	52,0	690	0,95	0,83	55,4	0,80	43,9	44,3	52,9	0	0	0,0	70	37	30,7	70	37	30,7	70	37	30,7	70	37	30,7	35	19	15,4	0	0	0	0	0	0		
19	343-EM101A	HYDRAULIC POWER UNIT (HPU), PUMP MOTOR 1	MCC13	M209A	D	DOL	165,0	690	0,95	0,87	166,3	0,70	121,1	116,4	139,2	0	0	0,0	30	42	36,3	30	42	36,3	30	42	36,3	30	42	36,3	15	21	18,2	0	0	0	0	0	0		
20	343-EM101B	HYDRAULIC POWER UNIT (HPU), PUMP MOTOR 2	MCC13	M209A	D	DOL	165,0	690	0,95	0,87	166,3	0,70	121,1	116,4	139,2	0	0	0,0	30	42	36,3	30	0	36,3	30	42	36,3	30	42	36,3	15	21	18,2	0	0	0	0	0	0		
21	343-EM101C	HYDRAULIC POWER UNIT (HPU), PUMP MOTOR 3	MCC13	M209A	D	DOL	165,0	690	0,95	0,87	166,3	0,70	121,1	116,4	139,2	0	0	0,0	30	42	36,3	30	42	36,3	30	42	36,3	30	42	36,3	15	21	18,2	0	0	0	0	0	0		
22	343-EM102A	HYDRAULIC POWER UNIT (HPU), CIRC. PUMP 1	MCC13	M209A	D	DOL	12,7	690	0,92	0,81	14,3	0,70	9,7	10,0	12,0	0	0	0,0	50	6	4,9	50	6	4,9	50	6	4,9	50	6	4,9	50	6	4,9	0	0	0	0	0	0		
23	343-EM103	HYDRAULIC POWER UNIT (HPU), FINE FILTER PUMP	MCC13	M209A	D	DOL	0,3	690	0,95	0,88	0,3	0,70	0,2	0,2	0,3	0	0	0,0	100	0	0,2	100	0	0,2	100	0	0,2	100	0	0,2	100	0	0,2	0	0	0	0	0,0	0		
24	865-ET-T03-A	DRILLING XFMR A HEAT EXCHANGER FAN	MCC13	M210	D	FDR	4,0	690	0,89	0,84	4,5	0,80	3,6	3,6	4,3	0	0	0,0	50	2	1,8	100	4	3,6	100	4	3,6	100	4	3,6	100	4	3,6	0	0	0	0	0	0		
25	867-EN-S01-A	DSWB 1A COOLING PUMP MOTOR A	MCC13	M210	D	DOL	7,5	690	0,86	0,86	8,5	0,80	7,0	6,8	8,1	0	0	0,0	50	4	3,5	50	4	3,5	50	4	3,5	50	4	3,5	50	4	3,5	0	0	0	0	0	0		
26	867-EN-S02-B	DSWB 1B COOLING PUMP MOTOR B	MCC13	M210	D	DOL	7,5	690	0,86	0,86	8,5	0,80	7,0	6,8	8,1	0	0	0,0	50	4	3,5	50	4	3,5	50	4	3,5	50	4	3,5	50	4	3,5	0	0	0	0	0	0		
		Total consumtion of MCC 13					***1 120***				***1 167***		***915***	***892***	***1 066***		***0***	***0***		***338***	***289***		***298***	***291***		***340***	***291***		***365***	***312***		***148***	***126***		***0***	***0***		***0***	***0***		
MARINE, 690VAC MCC 14, 873-EN-M04																																									
1	570-GA-130A	JUNCTION BOX FOR AHU 690V (570-JB-002)	MCC14	M327	V	2SPEED	46,0	690	0,90	0,88	48,6	0,80	40,9	38,9	46,5	100	46	40,9	100	46	40,9	100	46	40,9	100	46	40,9	100	46	40,9	100	46	40,9	0	0	0	0	0	0		7KW
3	570-GE-252A	VENTILATION FAN (AXIAL) FOR M118, M210	MCC14	N/A	V	2SPEED	1,8	690	0,72	0,81	2,6	0,80	2,0	2,1	2,5	100	2	2,0	100	2	2,0	100	2	2,0	100	2	2,0	100	2	2,0	100	2	2,0	0	0	0	0	0	0		0.45KW
4	570-GE-252B	VENTILATION FAN (AXIAL) FOR M118, M210	MCC14	N/A	V	2SPEED	2,2	690	0,77	0,85	2,82	0,80	2,3	2,3	2,7	100	3	2,3	100	3	2,3	100	3	2,3	100	3	2,3	100	3	2,3	100	3	2,3	0	0	0	0	0	0		0.6KW
5	571-HE-001A	CHILLER UNIT	MCC14	F/P/M132	V	FDR	357,5	690	1,00	0,91	327,0	0,80	286,0	261,6	312,7	25	78	71,5	25	78	71,5	50	156	143,0	50	156	143,0	50	156	143,0	25	78	71,5	0	0	0	0	0	0		
6	571-PA-001A	CHILLED WATER CIRCULATION PUMP	MCC14	F/P/M132	V	DOL	75,0	690	0,90	0,91	76,6	0,80	66,7	61,3	73,3	50	37	33,3	50	37	33,3	50	37	33,3	50	37	33,3	50	37	33,3	50	37	33,3	0	0	0	0	0	0		
9	576-GD-133A	VENTILATION FAN (CENTRIFUGAL) FOR M131	MCC14	F/P/M131	V	2SPEED	1,1	690	0,71	0,94	1,38	0,80	1,2	1,1	1,3	50	1	0,6	50	1	0,6	50	1	0,6	50	1	0,6	50	1	0,6	50	1	0,6	0	0	0	0	0	0		0.25KW
10	576-GE-256A	VENTILATION FAN (AXIAL) FOR M132, M134, M214, M216	MCC14	N/A	V	2SPEED	2,2	690	0,77	0,85	2,82	0,80	2,3	2,3	2,7	100	3	2,3	100	3	2,3	100	3	2,3	100	3	2,3	100	3	2,3	100	3	2,3	0	0	0	0	0	0		0.6KW
11	576-GE-256B	VENTILATION FAN (AXIAL) FOR M132, M134, M214, M214A, M216	MCC14	N/A	V	2SPEED	6,6	690	0,77	0,82	8,7	0,80	6,8	7,0	8,3	100	8	6,8	100	8	6,8	100	8	6,8	100	8	6,8	100	8	6,8	100	8	6,8	0	0	0	0	0	0		1.8KW
12	576-GE-258A	VENTILATION FAN (AXIAL) FOR M109, M114, M115	MCC14	M403	V	2SPEED	2,8	690	0,88	0,78	3,4	0,80	2,5	2,7	3,3	50	2	1,3	50	2	1,3	50	2	1,3	50	2	1,3	50	2	1,3	50	2	1,3	0	0	0	100	4	3		0.6KW
13	576-GE-258B	VENTILATION FAN (AXIAL) FOR M109, M114, M115	MCC14	M403	V	2SPEED	2,2	690	0,82	0,78	2,9	0,80	2,2	2,3	2,8	50	1	1,1	50	1	1,1	50	1	1,1	50	1	1,1	50	1	1,1	50	1	1,1	0	0	0	100	3	2		0.45KW
14	578-GE-272A	THERMAL OIL HEATED VENTING FAN FOR CELLAR DECK/AFT MID/MOONPOOL	MCC14	OUTSIDE	V	DOL	0,25	690	0,71	0,64	0,46	0,80	0,3	0,4	0,4	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	0	0	0	0	0	0		
15	578-GE-272B	THERMAL OIL HEATED VENTING FAN FOR CELLAR DECK/AFT PORT/MOONPOOL	MCC14	OUTSIDE	V	DOL	0,25	690	0,71	0,64	0,46	0,80	0,3	0,4	0,4	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	0	0	0	0	0	0		
16	578-GE-272C	THERMAL OIL HEATED VENTING FAN FOR CELLAR DECK/AFT MOONPOOL	MCC14	OUTSIDE	V	DOL	0,25	690	0,71	0,64	0,46	0,80	0,3	0,4	0,4	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	0	0	0	0	0	0		
17	578-GE-272G	THERMAL OIL HEATED VENTING FAN FOR DRILL FLOOR/AFT PORT	MCC14	OUTSIDE	V	DOL	0,25	690	0,71	0,64	0,46	0,80	0,3	0,4	0,4	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	0	0	0	0	0	0		
20	876-ER-V01	VFD FOR FWD PS ENGINE ROOM VENTILATION FAN	MCC14	F/P/M109	V	FDR	220,0	690	0,95	0,80	242,2	0,60	138,9	145,3	173,7	100	174	138,9	100	174	138,9	100	174	138,9	100	174	138,9	100	174	138,9	100	174	138,9	0	0	0	100	275	220		
21	UMCC-21070	USON MULTI CHAMBER COMPACTOR	MCC14	A207	M	FDR	2,2	690	0,80	0,80	2,9	0,80	2,2	2,3	2,8	40	1	0,9	40	1	0,9	40	1	0,9	40	1	0,9	40	1	0,9	40	1	0,9	0	0	0	0	0	0		
22	U-80-070	USON GLASS CRUSHER	MCC14	A207	M	FDR	3,8	690	0,84	0,80	4,7	0,80	3,6	3,8	4,5	40	2	1,4	40	2	1,4	40	2	1,4	40	2	1,4	40	2	1,4	40	2	1,4	0	0	0	0	0	0		
23	570-GE-130B	VENTILATION FAN (AXIAL) FOR COLUMN & PONTOON (FWD/PORT)	MCC14	M327	V	2SPEED	17,6	690	0,91	0,83	19,5	0,80	15,5	15,6	18,6	100	19	15,5	100	19	15,5	100	19	15,5	100	19	15,5	100	19	15,5	100	19	15,5	0	0	0	0	0	0		5.2KW
25	576-GE-141B	VENTILATION FAN (AXIAL) FOR M137, M218	MCC14	M336 OUT	V	DOL	3,3	690	0,83	0,87	3,85	0,80	3,2	3,1	3,7	100	4	3,2	100	4	3,2	100	4	3,2	100	4	3,2	100	4	3,2	100	4	3,2	0	0	0	0	0	0		
26	576-GE-141C	VENTILATION FAN (AXIAL) FOR M137, M218	MCC14	M336 OUT	V	DOL	4,4	690	0,83	0,84	5,3	0,80	4,2	4,2	5,0	100	5	4,2	100	5	4,2	100	5	4,2	100	5	4,2	100	5	4,2	100	5	4,2	0	0	0	0	0	0		
27	576-EN-H01	LCP FOR ELECTRIC HEATER 576-FE-432A	MCC14	87P	V	FDR	39,0	690	0,90	0,88	32,6	0,80	34,7	33,0	39,4	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
		Total consumption of MCC 14					***750***				***757***		***582***	***557***	***666***		***387***	***327***		***387***	***327***		***465***	***399***		***465***	***399***		***465***	***399***		***387***	***327***		***-***	***-***		***281***	***225***		
MARINE, 690VAC MCC 15, 873-EN-M05																																									
1	570-GE-263A	VENTILATION FAN (AXIAL) FOR M308A, M308, M309, M403	MCC15	M403	V	2SPEED	2,2	690	0,82	0,78	2,9	0,80	2,1	2,3	2,8	100	3	2,1	100	3	2,1	100	3	2,1	100	3	2,1	100	3	2,1	100	3	2,1	0	0	0	0	0	0		0.45KW
2	505-SC-001-A	BREATHING AIR SYSTEM	MCC15	M335	M	FDR	5,5	690	0,95	0,80	6,1	0,80	4,6	4,8	5,8	0	0	0,0	0	0	0,0	100	6	4,6	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
3	571-GA-303A	JUNCTION BOX FOR AHU 690V (571-JB-002)	MCC15	M501	V	DOL	17,3	690	0,92	0,88	17,9	0,80	15,0	14,3	17,1	100	17	15,0	100	17	15,0	100	17	15,0	100	17	15,0	100	17	15,0	100	17	15,0	0	0	0	0	0	0		
4	571-GA-303B	JUNCTION BOX FOR AHU 690V (571-JB-004)	MCC15	M501	V	DOL	17,3	690	0,92	0,88	17,9	0,80	15,0	14,3	17,1	100	17	15,0	100	17	15,0	100	17	15,0	100	17	15,0	100	17	15,0	100	17	15,0	0	0	0	0	0	0		
5	571-GA-303C	JUNCTION BOX FOR AHU 690V (571-JB-006)	MCC15	M601	V	DOL	3,45	690	0,80	0,88	4,09	0,80	3,4	3,3	3,9	100	4	3,4	100	4	3,4	100	4	3,4	100	4	3,4	100	4	3,4	100	4	3,4	0	0	0	0	0	0		
6	571-GA-303D	JUNCTION BOX FOR AHU 690V (571-JB-008)	MCC15	M601	V	DOL	3,45	690	0,80	0,88	4,09	0,80	3,4	3,3	3,9	100	4	3,4	100	4	3,4	100	4	3,4	100	4	3,4	100	4	3,4	100	4	3,4	0	0	0	0	0	0		
7	571-GA-304A	JUNCTION BOX FOR AHU 690V (571-JB-010)	MCC15	M401	V	DOL	8,6	690	0,86	0,88	9,53	0,80	8,0	7,6	9,1	100	9	8,0	100	9	8,0	100	9	8,0	100	9	8,0	100	9	8,0	100	9	8,0	0	0	0	0	0	0		
8	571-GA-304B	JUNCTION BOX FOR AHU 690V (571-JB-012)	MCC15	M401	V	DOL	8,6	690	0,86	0,88	9,53	0,80	8,0	7,6	9,1	100	9	8,0	100	9	8,0	100	9	8,0	100	9	8,0	100	9	8,0	100	9	8,0	0	0	0	0	0	0		
9	571-GA-305A	JUNCTION BOX FOR AHU 690V (571-JB-014)	MCC15	M403	V	DOL	3,45	690	0,80	0,88	4,09	0,80	3,4	3,3	3,9	100	4	3,4	100	4	3,4	100	4	3,4	100	4	3,4	100	4	3,4	100	4	3,4	0	0	0	0	0	0		
10	571-GA-305B	JUNCTION BOX FOR AHU 690V (571-JB-016)	MCC15	M403	V	DOL	3,45	690	0,80	0,88	4,09	0,80	3,4	3,3	3,9	100	4	3,4	100	4	3,4	100	4	3,4	100	4	3,4	100	4	3,4	100	4	3,4	0	0	0	0	0	0		
11	571-GA-305C	JUNCTION BOX FOR AHU 690V (571-JB-018)	MCC15	M211	V	DOL	8,6	690	0,86	0,88	9,53	0,80	8,0	7,6	9,1	100	9	8,0	100	9	8,0	100	9	8,0	100	9	8,0	100	9	8,0	100	9	8,0	0	0	0	0	0	0		
12	571-GA-305D	JUNCTION BOX FOR AHU 690V (571-JB-020)	MCC15	M211	V	DOL	8,6	690	0,86	0,88	9,53	0,80	8,0	7,6	9,1	100	9	8,0	100	9	8,0	100	9	8,0	100	9	8,0	100	9	8,0	100	9	8,0	0	0	0	0	0	0		
13	571-GD-302A	VENTILATION FAN (CENTRIFUGAL) FOR NAV. & 3RD DECK IN ACCOMMODATION	MCC15	M704	V	DOL	8,6	690	0,89	0,83	9,8	0,80	7,8	7,8	9,4	100	9	7,8	100	9	7,8	100	9	7,8	100	9	7,8	100	9	7,8	100	9	7,8	0	0	0	0	0	0		
14	571-GD-302B	VENTILATION FAN (CENTRIFUGAL) FOR NAV. & 3RD DECK IN ACCOMMODATION	MCC15	M704	V	DOL	9,0	690	0,85	0,85	10,4	0,80	8,5	8,3	10,0	100	10	8,5	100	10	8,5	100	10	8,5	100	10	8,5	100	10	8,5	100	10	8,5	0	0	0	0	0	0		
15	571-GD-303A	VENTILATION FAN (CENTRIFUGAL) FOR 2ND DECK IN ACCOMMODATION	MCC15	M501	V	DOL	1,8	690	0,76	0,85	2,3	0,80	1,8	1,8	2,2	100	2	1,8	100	2	1,8	100	2	1,8	100	2	1,8	100	2	1,8	100	2	1,8	0	0	0	0	0	0		
16	571-GD-303B	VENTILATION FAN (CENTRIFUGAL) FOR 2ND DECK IN ACCOMMODATION	MCC15	M501	V	DOL	1,8	690	0,76	0,85	2,3	0,80	1,8	1,8	2,2	100	2	1,8	100	2	1,8	100	2	1,8	100	2	1,8	100	2	1,8	100	2	1,8	0	0	0	0	0	0		
17	571-GD-304A	VENTILATION FAN (CENTRIFUGAL) FOR 1ST & UPPER DECK IN ACCOMMODATION	MCC15	M401	V	DOL	2,6	690	0,80	0,87	3,1	0,80	2,6	2,5	2,9	100	3	2,6	100	3	2,6	100	3	2,6	100	3	2,6	100	3	2,6	100	3	2,6	0	0	0	0	0	0		
18	571-GD-304B	VENTILATION FAN (CENTRIFUGAL) FOR 1ST & UPPER DECK IN ACCOMMODATION	MCC15	M401	V	DOL	2,6	690	0,80	0,87	3,1	0,80	2,6	2,5	2,9	50	1	1,3	50	1	1,3	50	1	1,3	50	1	1,3	50	1	1,3	50	1	1,3	0	0	0	0	0	0		
19	571-GD-305A	VENTILATION FAN (CENTRIFUGAL) FOR GALLEY AREAS IN ACCOMMODATION	MCC15	M403	V	DOL	1,8	690	0,76	0,85	2,3	0,80	1,8	1,8	2,2	50	1	0,9	50	1	0,9	50	1	0,9	50	1	0,9	50	1	0,9	50	1	0,9	0	0	0	0	0	0		
20	571-GD-305B	VENTILATION FAN (CENTRIFUGAL) FOR GALLEY AREAS IN ACCOMMODATION	MCC15	M403	V	DOL	1,8	690	0,76	0,85	2,3	0,80	1,8	1,8	2,2	100	2	1,8	100	2	1,8	100	2	1,8	100	2	1,8	100	2	1,8	100	2	1,8	0	0	0	0	0	0		
21	571-GD-305C	VENTILATION FAN (CENTRIFUGAL) FOR LOWER & TWEEN DECK IN ACCOMMODATION	MCC15	M403	V	DOL	2,6	690	0,80	0,87	3,1	0,80	2,6	2,5	2,9	100	3	2,6	100	3	2,6	100	3	2,6	100	3	2,6	100	3	2,6	100	3	2,6	0	0	0	0	0	0		
22	571-GD-305D	VENTILATION FAN (CENTRIFUGAL) FOR LOWER & TWEEN DECK IN ACCOMMODATION	MCC15	M403	V	DOL	2,6	690	0,80	0,87	3,1	0,80	2,6	2,5	2,9	100	3	2,6	100	3	2,6	100	3	2,6	100	3	2,6	100	3	2,6	100	3	2,6	0	0	0	0	0	0		
23	571-GD-305E	VENTILATION FAN (CENTRIFUGAL) FOR LOWER & TWEEN DECK IN ACCOMMODATION	MCC15	M403	V	DOL	3,6	690	0,82	0,89	4,15	0,80	3,5	3,3	4,0	100	4	3,5	100	4	3,5	100	4	3,5	100	4	3,5	100	4	3,5	100	4	3,5	0	0	0	0	0	0		
24	571-GD-305F	VENTILATION FAN (CENTRIFUGAL) FOR LOWER & TWEEN DECK IN ACCOMMODATION	MCC15	M403	V	DOL	3,6	690	0,82	0,89	4,15	0,80	3,5	3,3	4,0	100	4	3,5	100	4	3,5	100	4	3,5	100	4	3,5	100	4	3,5	100	4	3,5	0	0	0	0	0	0		
25	571-GD-308A	VENTILATION FAN (CENTRIFUGAL) FOR M705	MCC15	M705	V	DOL	0,44	690	0,71	0,84	0,62	0,80	0,5	0,5	0,6	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	0	0	0	100	1	0		
26	571-GE-302A	VENTILATION FAN (AXIAL) FOR HOSPITAL IN ACCOMMODATION	MCC15	M704	V	DOL	0,44	690	0,71	0,84	0,62	0,80	0,5	0,5	0,6	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	0	0	0	0	0	0		
27	571-GE-304C	VENTILATION FAN (AXIAL) FOR LAUNDRY IN ACCOMMODATION	MCC15	M401	V	DOL	4,8	690	0,83	0,86	5,65	0,80	4,6	4,5	5,4	100	5	4,6	100	5	4,6	100	5	4,6	100	5	4,6	100	5	4,6	100	5	4,6	0	0	0	0	0	0		
30	571-GE-308A	VENTILATION FAN (AXIAL) FOR M705	MCC15	M705	V	DOL	0,65	690	0,73	0,84	0,89	0,80	0,7	0,7	0,8	100	1	0,7	100	1	0,7	100	1	0,7	100	1	0,7	100	1	0,7	100	1	0,7	0	0	0	0	0	0		
31	571-GK-303A	HUMIDIFIER FOR AHU 571-GA-303A CKT.1	MCC15	M501	V	FDR	33,8	690	1,00	1,00	28,2	0,80	26,9	22,5	26,9	100	27	26,9	100	27	26,9	100	27	26,9	100	27	26,9	100	27	26,9	0	0	0,0	0	0	0	0	0	0		
32	571-GK-303A	HUMIDIFIER FOR AHU 571-GA-303A CKT.2	MCC15	M501	V	FDR	33,8	690	1,00	1,00	28,2	0,80	26,9	22,5	26,9	100	27	26,9	100	27	26,9	100	27	26,9	100	27	26,9	100	27	26,9	0	0	0,0	0	0	0	0	0	0		
33	571-GK-303B	HUMIDIFIER FOR AHU 571-GA-303B CKT.1	MCC15	M501	V	FDR	33,8	690	1,00	1,00	28,2	0,80	26,9	22,5	26,9	100	27	26,9	100	27	26,9	100	27	26,9	100	27	26,9	100	27	26,9	0	0	0,0	0	0	0	0	0	0		
34	571-GK-303B	HUMIDIFIER FOR AHU 571-GA-303B CKT.2	MCC15	M501	V	FDR	33,8	690	1,00	1,00	28,2	0,80	26,9	22,5	26,9	100	27	26,9	100	27	26,9	100	27	26,9	100	27	26,9	100	27	26,9	0	0	0,0	0	0	0	0	0	0		
35	571-GK-303C	HUMIDIFIER FOR AHU 571-GA-303C/D	MCC15	M601	V	FDR	33,8	690	1,00	1,00	28,2	0,80	26,9	22,5	26,9	100	27	26,9	100	27	26,9	100	27	26,9	100	27	26,9	100	27	26,9	0	0	0,0	0	0	0	0	0	0		
36	571-GK-304A	HUMIDIFIER FOR AHU 571-GA-304A CKT.1	MCC15	M401	V	FDR	43,5	690	1,00	1,00	36,4	0,80	34,8	29,1	34,8	100	35	34,8	100	35	34,8	100	35	34,8	100	35	34,8	100	35	34,8	0	0	0,0	0	0	0	0	0	0		
37	571-GK-304A	HUMIDIFIER FOR AHU 571-GA-304A CKT.2	MCC15	M401	V	FDR	43,5	690	1,00	1,00	36,4	0,80	34,8	29,1	34,8	100	35	34,8	100	35	34,8	100	35	34,8	100	35	34,8	100	35	34,8	0	0	0,0	0	0	0	0	0	0		
38	571-GK-305A	HUMIDIFIER FOR AHU 571-GA-305A/B	MCC15	M403	V	FDR	33,8	690	1,00	1,00	28,2	0,80	26,9	22,5	26,9	100	27	26,9	100	27	26,9	100	27	26,9	100	27	26,9	100	27	26,9	0	0	0,0	0	0	0	0	0	0		
39	571-GK-305B	HUMIDIFIER FOR AHU 571-GA-305C/D CKT.1	MCC15	M211	V	FDR	43,5	690	1,00	1,00	36,4	0,80	34,8	29,1	34,8	100	35	34,8	100	35	34,8	100	35	34,8	100	35	34,8	100	35	34,8	0	0	0,0	0	0	0	0	0	0		
40	571-GK-305B	HUMIDIFIER FOR AHU 571-GA-305C/D CKT.2	MCC15	M211	V	FDR	43,5	690	1,00	1,00	36,4	0,80	34,8	29,1	34,8	100	35	34,8	100	35	34,8	100	35	34,8	100	35	34,8	100	35	34,8	0	0	0,0	0	0	0	0	0	0		
		Total consumtion of MCC15					***516***				***471***		***431***	***377***	***451***		***442***	***424***		***442***	***424***		***448***	***429***		***442***	***424***		***442***	***424***		***142***	***123***		***0***	***0***		***1***	***0***		
MARINE, 690VAC MCC 21, 873-EN-M06																																									
1	874-JB-011	POWER J/B FOR MUD LOGGING UNIT	MCC21	N/A	D	FDR	60,0	690	0,98	0,85	60,3	0,80	49,0	48,2	57,6	0	0	0,0	0	0	0,0	100	58	49,0	100	58	49,0	100	58	49,0	50	29	24,5	0	0	0	0	0	0		
2	874-JB-012	POWER J/B FOR MWD/LWD	MCC21	N/A	D	FDR	60,0	690	0,98	0,85	60,3	0,80	49,0	48,2	57,6	0	0	0,0	0	0	0,0	100	58	49,0	100	58	49,0	100	58	49,0	50	29	24,5	0	0	0	0	0	0		
3	501-IE-001-B	LIFE BOAT DAVIT NO.2 CONTROL PANEL	MCC21	N/A	M	FDR	34,5	690	0,90	0,85	37,7	0,80	30,7	30,2	36,1	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		

Odfjell G' F
Project NO: 3025

ELECTRICAL LOAD ANALYSIS

S/N	Equipment number	DESCRIPTION	MCC	ROOM NO	SER-VICE	STARTER TYPE	CONNECTED LOAD					L.F.				TRANSIT + DP 75%			MOORING + THR ASST 50%			DRILLING + DP 50%			DRILLING + DP 75%			BK REAM'G + DP 75%			WELL CIRC'N AFTER DP MAX SINGLE FAILURE			DEAD SHIP POWER			EMERGENCY MODE			REMARK	Reference Low Speed Rating
							kW	VOLT	EFF	PF	AMP		kW	AMP	kVA	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW		
4	502-IE-001-B	NO2. ESCAPE CHUTE SYSTEM	MCC21	N/A	M	FDR	8,6	690	0,90	0,85	9,4	0,80	7,6	7,5	9,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
5	571-PA-101-B	HEATING WATER CIRCULATION PUMP	MCC21	F/P/107	M	DOL	11,0	690	0,89	0,91	11,4	0,80	9,9	9,1	10,9	50	5	4,9	50	5	4,9	50	5	4,9	50	5	4,9	50	5	4,9	10	1	1,0	0	0	0	0	0	0		
6	581-FC-001-B	CALORIFIER	MCC21	F/S/M129	M	FDR	130,0	690	0,95	0,84	136,3	0,80	109,5	109,0	130,3	25	33	27,4	25	33	27,4	25	33	27,4	25	33	27,4	25	33	27,4	25	33	27,4	0	0	0	0	0	0		
7	581-PA-002-B	HOT WATER CIRCULATION PUMP	MCC21	F/S/M129	M	DOL	2,5	690	0,83	0,82	3,1	0,80	2,4	2,5	3,0	50	1	1,2	50	1	1,2	50	1	1,2	50	1	1,2	50	1	1,2	100	3	2,4	0	0	0	0	0	0		
8	601-EC-001-C	MAIN ENGINE C TURNING GEAR UNIT	MCC21	F/S/M122	M	FDR	2,5	690	0,63	0,67	5,0	0,80	3,2	4,0	4,7	25	1	0,8	25	1	0,8	25	1	0,8	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
9	601-EC-001-D	MAIN ENGINE D TURNING GEAR UNIT	MCC21	F/S/M122	M	FDR	2,5	690	0,63	0,67	5,0	0,80	3,2	4,0	4,7	25	1	0,8	25	1	0,8	25	1	0,8	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
10	601-EC-002-C	MAIN ENGINE C PRE-LUBRICATION OIL PUMP	MCC21	F/S/M122	M	FDR	22,0	690	0,94	0,82	24,0	1,00	23,4	24,0	28,7	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	0	0	0	0	0	0		
11	601-EC-002-D	MAIN ENGINE D PRE-LUBRICATION OIL PUMP	MCC21	F/S/M122	M	FDR	22,0	690	0,94	0,82	24,0	1,00	23,4	24,0	28,7	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	0	0	0	0	0	0		
12	635-EC-001-E	THRUSTER E LUBRICATION UNIT	MCC21	F/S/23P	T	FDR	5,2	690	0,88	0,91	5,4	0,80	4,7	4,3	5,2	100	5	4,7	100	5	4,7	100	5	4,7	100	5	4,7	100	5	4,7	100	5	4,7	0	0	0	0	0	0		
13	635-EC-002-EA	THRUSTER E HYDRAULIC POWER PACK 1	MCC21	F/S/23P	T	FDR	90,0	690	0,88	0,93	92,1	0,80	81,8	73,7	88,1	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	0	0	0	0	0	0		
14	635-EC-002-EB	THRUSTER E HYDRAULIC POWER PACK 2	MCC21	F/S/23P	T	FDR	90,0	690	0,88	0,93	92,1	0,80	81,8	73,7	88,1	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	0	0	0	0	0	0		
15	702-CF-001-B	FUEL OIL SEPERATOR	MCC21	F/S/M130	M	FDR	175,0	690	0,95	0,94	164,0	0,80	147,4	131,2	156,8	50	78	73,7	50	78	73,7	50	78	73,7	50	78	73,7	50	78	73,7	50	78	73,7	0	0	0	0	0	0		
16	703-PG-003-C	F.O. CIRCULATION PUMP C	MCC21	F/S/M130	M	DOL	8,6	690	0,90	0,91	8,8	0,80	7,7	7,1	8,4	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	0	0	0	100	9	9		
17	721-PA-001-D	FWD MAIN SEA COOLING WATER PUMP	MCC21	F/P/8S	M	SFT	152,0	690	0,92	0,90	154,2	0,80	132,7	123,4	147,4	50	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	100	147	132,7	0	0	0	100	169	152		
18	721-PA-005-E	THRUSTER SEA WATER COOLING PUMP	MCC21	F/S/23P	T	DOL	12,7	690	0,88	0,89	13,5	0,80	11,5	10,8	12,9	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	0	0	0	0	0	0		
19	722-PA-001-D	FRESH WATER COOLING PUMP	MCC21	F/S/M129	M	DOL	63,0	690	0,93	0,89	63,83	0,80	54,3	51,1	61,0	25	15	13,6	25	15	13,6	25	15	13,6	50	31	27,2	50	31	27,2	50	31	27,2	0	0	0	0	0	0		
20	722-IF-001-B	LT-PREHEATING UNIT	MCC21	F/S/M122	M	FDR	3,0	690	0,70	0,80	4,5	1,00	4,3	4,5	5,4	25	1	1,1	25	1	1,1	25	1	1,1	25	1	1,1	25	1	1,1	25	1	1,1	0	0	0	0	0	0		
21	722-IF-002-B	HT-PREHEATING UNIT	MCC21	F/S/M122	M	FDR	108,8	690	0,95	0,90	106,4	1,00	114,5	106,4	127,2	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	0	0	0	0	0	0		
22	801-PA-001-B	BALLAST PUMP, SUBMERSIBLE B	MCC21	F/P/8P	M	DOL	84,0	690	0,94	0,87	85,9	0,80	71,5	68,8	82,2	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
23	803-PG-101-B	SLUDGE PUMP	MCC21	F/S/M130	M	DOL	2,2	690	0,84	0,74	3,0	0,80	2,1	2,4	2,8	5	0	0,1	5	0	0,1	5	0	0,1	5	0	0,1	5	0	0,1	5	0	0,1	0	0	0	0	0	0		
24	804-PA-005-A	CLEAN SUMP TRANSFER PUMP	MCC21	F/S/50S	M	DOL	8,6	690	0,88	0,91	8,98	0,80	7,8	7,2	8,6	5	0	0,4	5	0	0,4	5	0	0,4	5	0	0,4	5	0	0,4	5	0	0,4	0	0	0	0	0	0		
25	861-PA-001-C	11KV GENERATOR-C DE L/O PUMP	MCC21	F/S/M122	M	DOL	1,75	690	0,84	0,80	2,2	0,80	1,7	1,7	2,1	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	0	0	0	0	0	0		
26	861-PA-002-C	11KV GENERATOR-C NDE L/O PUMP	MCC21	F/S/M122	M	DOL	1,75	690	0,84	0,80	2,2	0,80	1,7	1,7	2,1	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	0	0	0	0	0	0		
27	865-ET-T04-EA	THRUSTER XFMR E HEAT EXCHAGER FAN	MCC21	F/S/23P	T	FDR	4,0	690	0,89	0,84	4,5	0,80	3,6	3,6	4,3	50	2	1,8	50	2	1,8	50	2	1,8	50	2	1,8	50	2	1,8	50	2	1,8	0	0	0	0	0	0		
28	865-ET-T07	690V/110V TRANSFORMER	MCC21	F/S/M121	M	FDR	40,0	690	0,95	0,80	44,0	0,80	33,7	35,2	42,1	10	4	3,4	10	4	3,4	10	4	3,4	10	4	3,4	10	4	3,4	10	4	3,4	0	0	0	0	0	0		
29	865-ET-T10-A	TRANSFORMER FOR HEAT TRACING SYSTEM	MCC21	F/S/M121	M	FDR	200,0KVA	690	1,00	1,00	167,3	0,80	160,0	133,9	160,0	50	80	80,0	50	80	80,0	50	80	80,0	50	80	80,0	50	80	80,0	50	80	80,0	0	0	0	0	0	0		
30	866-ER-UC2	11KV SWBD HS2 UPS FOR CONTROL POWER	MCC21	F/S/M119	M	FDR	13,8KVA	690	0,98	0,85	11,6	0,80	9,6	9,4	11,3	100	11	9,6	100	11	9,6	100	11	9,6	100	11	9,6	100	11	9,6	100	11	9,6	0	0	0	100	16	13		
31	867-EH-001-EA	THRUSTER VFD E WATER COOLING UNIT	MCC21	F/S/23P	T	FDR	9,2	690	0,90	0,89	9,6	0,80	8,2	7,7	9,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	0	0	0	0	0	0		
32	867-EH-001-EB	THRUSTER VFD E PRECHARGING AND MISC. LV LOADS	MCC21	F/S/23P	T	FDR	10,2	690	0,98	0,85	10,2	0,50	5,2	5,1	6,1	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	0	0	0	0	0	0		
34	875-EN-P12	PANEL BOARD FOR WATER TIGHT DOOR	MCC21	M124	M	FDR	6,0	690	0,77	0,68	9,6	0,60	4,7	5,8	6,9	100	7	4,7	100	7	4,7	100	7	4,7	100	7	4,7	100	7	4,7	100	7	4,7	0	0	0	0	0	0		
		Total consumption of MCC 21					*1 445*				*1 440*		*1 262*	*1 179*	*1 409*		*555*	*510*		*555*	*510*		*670*	*608*		*683*	*620*		*683*	*620*		*697*	*635*		*-*	*-*		*194*	*174*		
MARINE, 690VAC MCC 22, 873-EN-M07																																									
1	324-EM110	COLUMN WBM TRANSFER PUMP NO. 2 STANDBY	MCC22	42P	D	DOL	98,0	690	0,95	0,86	100,2	0,90	92,6	90,1	107,7	0	0	0,0	20	22	18,5	20	22	18,5	20	22	18,5	20	22	18,5	0	0	0,0	0	0	0	0	0	0		
2	324-EM111	COLUMN OBM TRANSFER PUMP NO. 1 DUTY	MCC22	42S	D	DOL	98,0	690	0,95	0,86	100,2	0,90	92,6	90,1	107,7	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
3	324-EM115	TRANSFER PUMP NO.1 - COMPLETION FLUID DUTY	MCC22	F/S/8S	D	DOL	98,0	690	0,95	0,86	100,2	0,90	92,6	90,1	107,7	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
4	324-EM155	AGITATOR, STORAGE TANK NO. 1 (OBM, COLUMN)	MCC22	46S	D	DOL	30,0	690	0,82	0,55	56,0	0,80	29,4	20,9	25,0	0	0	0,0	50	27	14,7	50	3	14,7	50	3	14,7	50	27	14,7	25	13	7,4	0	0	0	0	0	0		
5	324-EM156	AGITATOR, STORAGE TANK NO. 2 (OBM, COLUMN)	MCC22	44S	D	DOL	30,0	690	0,82	0,55	56,0	0,80	29,4	44,8	53,5	0	0	0,0	50	27	14,7	50	27	14,7	50	27	14,7	50	27	14,7	25	13	7,4	0	0	0	0	0	0		
6	324-EM157	AGITATOR, STORAGE TANK NO. 3 (OBM, COLUMN)	MCC22	42S	D	DOL	30,0	690	0,82	0,55	56,0	0,80	29,4	44,8	53,5	0	0	0,0	50	27	14,7	50	27	14,7	50	27	14,7	50	27	14,7	25	13	7,4	0	0	0	0	0	0		
7	324-EM158	AGITATOR, STORAGE TANK NO. 4 (OBM, COLUMN)	MCC22	42S	D	DOL	30,0	690	0,82	0,55	56,0	0,80	29,4	44,8	53,5	0	0	0,0	50	27	14,7	50	27	14,7	50	27	14,7	50	27	14,7	25	13	7,4	0	0	0	0	0	0		
8	327-EM102	TRANSFER PUMP NO.2 - DRILL WATER DUTY	MCC22	F/S/8S	D	DOL	63,0	690	0,97	0,95	57,0	0,90	58,3	51,3	61,3	0	0	0,0	10	6	5,8	10	6	5,8	10	6	5,8	10	6	5,8	0	0	0,0	0	0	0	0	0	0		
9	327-EM104	SERVICE PUMP NO.2 - DRILL WATER DUTY	MCC22	F/S/8S	D	DOL	25,0	690	0,99	0,99	21,4	0,90	22,8	19,3	23,0	0	0	0,0	50	12	11,4	50	12	11,4	50	12	11,4	50	12	11,4	50	12	11,4	0	0	0	0	0	0		
10	581-PA-001-B	POTABLE WATER SERVICE PUMP	MCC22	F/S/8S	M	DOL	17,3	690	0,89	0,90	18,1	0,80	15,6	14,5	17,3	50	9	7,8	50	9	7,8	50	9	7,8	50	9	7,8	50	9	7,8	100	17	15,6	0	0	0	0	0	0		
11	701-PG-001-B	F.O. TRANSFER PUMP	MCC22	F/S/8S	M	DOL	17,3	690	0,92	0,84	18,7	0,80	15,0	15,0	17,9	20	4	3,0	20	4	3,0	20	4	3,0	20	4	3,0	20	4	3,0	20	4	3,0	0	0	0	100	21	17		
12	701-PG-002-B	F.O. SUPPLY PUMP	MCC22	F/S/M130	M	DOL	1,7	690	0,81	0,77	2,3	0,80	1,7	1,8	2,2	20	0	0,3	20	0	0,3	20	0	0,3	20	0	0,3	20	0	0,3	40	1	0,7	0	0	0	100	2	2		
13	703-PG-003-D	F.O. CIRCULATION PUMP D	MCC22	F/S/M130	M	DOL	8,6	690	0,90	0,91	8,8	0,80	7,7	7,1	8,4	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	0	0	0	0	0	0		
14	721-PA-001-C	FWD MAIN SEA COOLING WATER PUMP	MCC22	F/P/8S	M	SFT	152,0	690	0,92	0,90	154,2	0,80	132,7	123,4	147,4	50	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	100	147	132,7	0	0	0	0	0	0		
15	721-PA-005-C	THRUSTER SEA WATER COOLING PUMP	MCC22	A/P/4S	T	DOL	12,7	690	0,88	0,89	13,5	0,80	11,5	20,9	25,0	50	6	5,8	50	3	2,0	50	3	2,0	50	3	2,0	50	3	2,0	50	13	10,0	0	0	0	0	0	0		
16	722-PA-001-C	FRESH WATER COOLING PUMP	MCC22	F/S/M129	M	DOL	63,0	690	0,93	0,89	63,83	0,80	54,3	51,1	61,0	25	15	13,6	25	15	13,6	25	15	13,6	50	31	27,2	50	31	27,2	50	31	27,2	0	0	0	100	71	63		
17	801-PA-001-C	BALLAST PUMP, SUBMERSIBLE C	MCC22	F/P/8S	M	DOL	84,0	690	0,94	0,87	85,9	0,80	71,5	68,8	82,2	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
18	803-PA-001-B	BILGE PUMP, PONTOON	MCC22	F/P/8S	M	DOL	12,7	690	0,88	0,90	13,4	0,80	11,5	10,7	12,8	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
19	804-PA-101-B	CLEAN SUMP TRANSFER PUMP	MCC22	F/P/8P	M	DOL	51,8	690	0,92	0,87	54,0	0,80	40,1	39,5	47,2	5	2	2,0	5	2	2,0	5	2	2,0	5	2	2,0	5	2	2,0	5	2	2,0	0	0	0	0	0	0		
20	804-PG-003-C	DRAIN TRANSFER PUMP	MCC22	F/S/42S	M	DOL	4,0	690	0,82	0,82	4,98	0,80	3,9	4,0	4,8	5	0	0,2	5	0	0,2	5	0	0,2	5	0	0,2	5	0	0,2	0	0	0,0	0	0	0	0	0	0		
21	804-PG-003-D	DRAIN TRANSFER PUMP	MCC22	F/S/42S	M	DOL	4,0	690	0,82	0,82	4,98	0,80	3,9	4,0	4,8	5	0	0,2	5	0	0,2	5	0	0,2	5	0	0,2	5	0	0,2	0	0	0,0	0	0	0	0	0	0		
22	861-PA-001-D	11KV GENERATOR-D DE L/O PUMP	MCC22	F/S/M122	M	DOL	1,75	690	0,84	0,80	2,2	0,80	1,7	1,7	2,1	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	0	0	0	100	2	2		
23	861-PA-002-D	11KV GENERATOR-D NDE L/O PUMP	MCC22	F/S/M122	M	DOL	1,75	690	0,84	0,80	2,2	0,80	1,7	1,7	2,1	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	0	0	0	100	2	2		
24	875-EN-P14	PANEL BOARD FOR WATER TIGHT DOOR (REDUNDANCY)	MCC22	M159	M	FDR	5,3	690	0,77	0,68	8,5	0,60	4,1	5,1	6,1	100	6	4,1	100	6	4,1	100	6	4,1	100	6	4,1	100	6	4,1	100	6	4,1	0	0	0	0	0	0		
	875-EN-M22, Consumption of Panel board 22																																								
1	278-EU-002-B	ICCP POWER CONTROL UNIT	MPB22	N/A	M	FDR	10,5	690	0,97	0,95	9,5	0,50	5,4	4,8	5,7	100	6	5,4	100	6	5,4	100	6	5,4	100	6	5,4	100	6	5,4	100	6	5,4	0	0	0	0	0	0		
2	431-IC-004-B	START CABINET FOR WINDLASS	MPB22	N/A	M	FDR	13,3	690	0,63	0,55	32,0	0,80	16,8	25,6	30,6	0	0	0,0	60	18	10,1	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
3	501-JB-101	J/B FOR RESCUE BOAT	MPB22	N/A	M	FDR	35,0	690	0,90	0,85	38,3	0,80	31,1	30,6	36,6	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
4	561-ET-001-B	TR FOR LIFT IN STBD COLUMN	MPB22	N/A	M	FDR	60,0	690	0,95	0,88	60,1	0,80	50,5	48,0	57,4	10	6	5,1	10	6	5,1	10	6	5,1	10	6	5,1	10	6	5,1	10	6	5,1	0	0	0	0	0	0		
5	635-EC-001-C	THRUSTER C LUBRICATION UNIT	MPB22	A/P/4S	T	FDR	5,2	690	0,88	0,91	5,4	0,80	4,7	4,3	5,2	100	5	4,7	100	5	4,7	100	5	4,7	100	5	4,7	100	5	4,7	100	5	4,7	0	0	0	0	0	0		
6	635-EC-002-CA	THRUSTER C HYDRAULIC POWER PACK 1	MPB22	A/P/4S	T	FDR	90,0	690	0,88	0,93	92,1	0,80	81,8	73,7	88,1	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	0	0	0	0	0	0		
7	635-EC-002-CB	THRUSTER C HYDRAULIC POWER PACK 2	MPB22	A/P/4S	T	FDR	90,0	690	0,88	0,93	92,1	0,80	81,8	73,7	88,1	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	0	0	0	0	0	0		
8	831-IH-001-AB	HPP MOTOR FOR REMOTE CONTROL VALVE	MPB22	N/A	M	FDR	18,0	690	0,95	0,80	19,8	0,80	15,2	15,9	18,9	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	0	0	0	100	23	18		
9	831-IH-001-BA	HPP MOTOR FOR REMOTE CONTROL VALVE	MPB22	N/A	M	FDR	18,0	690	0,95	0,80	19,8	0,80	15,2	15,9	18,9	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	0	0	0	0	0	0		
10	865-ET-T04-CA	THRUSTER XFMR C HEAT EXCHAGER FAN	MPB22	A/P/4S	T	FDR	3,5	690	0,89	0,84	3,9	0,80	3,1	3,1	3,7	50	2	1,6	50	2	1,6	50	2	1,6	50	2	1,6	50	2	1,6	50	2	1,6	0	0	0	0	0	0		
11	867-EH-001-CA	THRUSTER VFD C WATER COOLING UNIT	MPB22	A/P/4S	T	FDR	9,2	690	0,90	0,89	9,6	0,80	8,2	7,7	9,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	0	0	0	0	0	0		
12	867-EH-001-CB	THRUSTER VFD C PRECHARGING AND MISC. LV LOADS	MPB22	A/P/4S	T	FDR	10,2	690	0,98	0,85	10,2	0,50	5,2	5,1	6,1	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	0	0	0	0	0	0		
		Total consumtion of MCC 22					*1 303*				*1 452*		*1 173*	*1 174*	*1 403*		*333*	*303*		*494*	*404*		*451*	*394*		*467*	*407*		*491*	*407*		*502*	*436*		*-*	*-*		*120*	*104*		
DRILLING, 690VAC MCC 23, 873-EN-M08																																									
1	311-IB460B	HVAC DC and LER Emergency Power	MCC23	M606	D	FDR	1,8	690	0,95	0,85	1,9	0,60	1,1	1,1	1,3	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	100	2	2		
2	312-EM002B	AHD DRAWWORKS AW BLOWER MOTOR #B	MCC23	N/A	D	DOL	63,0	690	0,93	0,87	65,2	0,80	54,2	52,1	62,3	0	0	0,0	30	19	16,3	30	19	16,3	30	19	16,3	50	31	27,1	0	0	0,0	0	0	0	0	0	0		
3	312-EM003B	AHD DRAWWORKS AW HPU MOTOR #B	MCC23	N/A	D	DOL	4,0	690	0,89	0,85	4,4	0,70	3,1	3,1	3,7	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
4	312-EM004B	AHD DRAWWORKS AW LUBE OIL MOTOR #B	MCC23	N/A	D	DOL	5,5	690	0,90	0,87	5,9	0,70	4,3	4,1	4,9	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
5	312-EM202B	AHD D1 DRAWWORKS MW BLOWER MOTOR #B	MCC23	N/A	D	DOL	63,0	690	0,93	0,87	65,2	0,80	54,2	52,1	62,3	0	0	0,0	30	19	16,3	30	19	16,3	30	19	16,3	50	31	27,1	0	0	0,0	0	0	0	0	0	0		
6	312-EM203B	AHD D1 DRAWWORKS MW HPU MOTOR #B	MCC23	N/A	D	DOL	4,0	690	0,89	0,85	4,4	0,70	3,1	3,1	3,7	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
7	312-EM204B	AHD D1 DRAWWORKS MW LUBE OIL MOTOR #B	MCC23	N/A	D	DOL	5,5	690	0,90	0,87	5,9	0,70	4,3	4,1	4,9	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
8	315-EN200	STANDBY APVS AND COMPRESSORS, MOTOR CONPRESSOR 2	MCC23	M226	D	FDR	50,0	690	0,95	0,85	51,8	0,90	47,4	46,6	55,7	0	0	0,0	10	6	4,7	10	6	4,7	10	6	4,7	10	6	4,7	0	0	0,0	0	0	0	0	0	0		
9	321-EM800	OFFSHORE LOADING STATION #1	MCC23	N/A	D	DOL	11,0	690	0,95	0,85	11,4	0,80	9,3	9,1	10,9	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
10	324-EM105	MUD TRANSFER PUMP NO.3 - OBM DUTY	MCC23	M151	D	DOL	67,0	690	0,95	0,86	68,5	0,90	63,3	61,6	73,7	0	0	0,0	20	15	12,7	20	15	12,7	20	15	12,7	20	15	12,7	0	0	0,0	0	0	0	0	0	0		
11	324-EM107	MUD MIX PUMP NO.3 - OBM DUTY	MCC23	M151	D	DOL	67,0	690	0,95	0,86	68,5	0,90	63,3	61,6	73,7	0	0	0,0	20	15	12,7	20	15	12,7	20	15	12,7	20	15	12,7	20	15	12,7	0	0	0	0	0	0		
12	324-EM140	WASHING MACHINE PUMP OBM STORAGE	MCC23	42S	D	DOL	9,2	690	0,83	0,82	11,3	0,70	7,7	7,9	9,5	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
13	325-EM102D	HP MUD PUMP NO. 4, FAN A	MCC23	M151	D	DOL	13,0	690	0,92	0,83	14,2	0,80	11,3	11,4	13,6	0	0	0,0	25	3	2,8	25	3	2,8	25	3	2,8	25	3	2,8	50	7	5,7	0	0	0	0	0	0		
14	325-EM103D	HP MUD PUMP NO. 4, FAN B	MCC23	M151	D	DOL	13,0	690	0,92	0,83	14,2	0,80	11,3	11,4	13,6	0	0	0,0	25	3	2,8	25	3	2,8	25	3	2,8	25	3	2,8	50	7	5,7	0	0	0	0	0	0		
15	325-EM104D	HP MUD PUMP NO. 4, LINER SPRAY PUMP MOTOR	MCC23	M151	D	DOL	2,3	690	0,83	0,82	2,8	0,60	1,6	1,7	2,0	0	0	0,0	100	2	1,6	100	2	1,6	100	2	1,6	100	2	1,6	50	1	0,8	0	0	0	0	0	0		

Odfjell G' F
Project NO: 3025

ELECTRICAL LOAD ANALYSIS

S/N	Equipment number	DESCRIPTION	MCC	ROOM NO	SER-VICE	STARTER TYPE	CONNECTED LOAD kW	VOLT	EFF	PF	AMP	L.F.	kW	AMP	kVA
16	325-EM105D	HP MUD PUMP NO. 4, LUBE OIL MOTOR	MCC23	M151	D	DOL	1,1	690	0,78	0,80	1,5	0,60	0,8	0,9	1,1
17	325-EM114	MUD CHARGE PUMP NO. 4 STANDBY	MCC23	M151	D	DOL	52,0	690	0,95	0,83	55,4	0,80	43,9	44,3	52,9
18	325-EM118	MUD CHARGE PUMP NO. 8 STANDBY	MCC23	M151	D	DOL	52,0	690	0,95	0,83	55,4	0,80	43,9	44,3	52,9
19	332-EM100A	BOP SYSTEM, HPU WITH MIXING SYSTEM, PUMP #1	MCC23	M166	D	DOL	110,0	690	0,94	0,85	115,2	0,80	93,6	92,2	110,1
20	332-EN101	BOP SYSTEM, HPU WITH MIXING SYSTEM	MCC23	M166	D	FDR	40,0	690	0,94	0,85	41,9	0,80	34,0	33,5	40,1
21	332-EN110	BOP SYSTEM, FLUID RECOVERY SYSTEM, MOTOR 1	MCC23	M166	D	FDR	75,0	690	0,94	0,85	78,5	0,80	63,8	62,8	75,1
23	332-UL100A	BOP SYSTEM, UPS A	MCC23	M166	D	FDR	22,0KVA	690	0,98	0,86	21,8	0,80	15,4	15,0	18,0
24	343-EM101D	HYDRAULIC POWER UNIT (HPU), PUMP MOTOR 4	MCC23	M209A	D	DOL	165,0	690	0,95	0,87	166,3	0,70	121,1	116,4	139,2
25	343-EM101E	HYDRAULIC POWER UNIT (HPU), PUMP MOTOR 5	MCC23	M209A	D	DOL	165,0	690	0,95	0,87	166,3	0,70	121,1	116,4	139,2
26	343-EM101F	HYDRAULIC POWER UNIT (HPU), PUMP MOTOR 6	MCC23	M209A	D	DOL	165,0	690	0,95	0,87	166,3	0,70	121,1	116,4	139,2
27	343-EM102B	HYDRAULIC POWER UNIT (HPU), CIRC. PUMP 2	MCC23	M209A	D	DOL	12,7	690	0,92	0,85	13,6	0,70	9,7	9,6	11,4
28	865-ET-T03-B	DRILLING XFMR B HEAT EXCHANGER FAN	MCC23	M210	D	FDR	4,0	690	0,89	0,85	4,4	0,80	3,6	3,5	4,2
29	866-EY-004-A	BRAKING RESISTOR COOLING PUMP A	MCC23	M226	D	DOL	110,0	690	0,95	0,84	115,0	0,80	92,3	92,0	109,9
30	867-EN-S02-A	DSWB 1B COOLING PUMP MOTOR A	MCC23	M210	D	DOL	7,5	690	0,86	0,86	8,5	0,80	7,0	6,8	8,1
31	867-EN-S01-B	DSWB 1A COOLING PUMP MOTOR B	MCC23	M210	D	DOL	7,5	690	0,86	0,86	8,5	0,80	7,0	6,8	8,1
		Total consumtion of MCC 23					1 368				1 414		1 118	1 092	1 305
MARINE, 690VAC MCC 24, 873-EN-M09															
1	570-GA-134A	JUNCTION BOX FOR AHU 690V (570-JB-004)	MCC24	M333	V	2SPEED	46,0	690	0,90	0,88	48,6	0,80	40,9	38,9	46,5
3	571-GE-305E	VENTILATION FAN (AXIAL) FOR M117	MCC24	M403	V	DOL	0,3	690	0,63	0,74	0,52	0,80	0,4	0,4	0,5
4	571-GE-305F	VENTILATION FAN (AXIAL) FOR M117	MCC24	M403	V	DOL	0,3	690	0,63	0,74	0,52	0,80	0,4	0,4	0,5
5	571-GE-306C	VENTILATION FAN (AXIAL) FOR A801, A701, M603	MCC24	A801R	V	DOL	3,3	690	0,83	0,87	3,85	0,80	3,2	3,1	3,7
6	571-HE-001B	CHILLER UNIT	MCC24	F/P/M132	V	FDR	357,5	690	1,00	0,91	327,0	0,80	286,0	261,6	312,7
7	571-PA-001B	CHILLED WATER CIRCULATION PUMP	MCC24	F/P/M132	V	DOL	75,0	690	0,90	0,91	76,6	0,80	66,7	61,3	73,3
10	570-GE-246A	VENTILATION FAN (AXIAL) FOR M325, M505	MCC24	M505R	V	2SPEED	4,5	690	0,81	0,91	5,1	0,80	4,4	4,1	4,9
11	575-GE-246B	VENTILATION FAN (AXIAL) FOR M325	MCC24	M504R	V	2SPEED	2,8	690	0,78	0,88	3,4	0,80	2,9	2,7	3,3
12	576-GD-137A	VENTILATION FAN (CENTRIFUGAL) FOR M130	MCC24	F/S/M130	V	2SPEED	1,1	690	0,71	0,94	1,38	0,80	1,2	1,1	1,3
13	576-GE-257A	VENTILATION FAN (AXIAL) FOR M116, M119, M121	MCC24	M403	V	2SPEED	2,2	690	0,82	0,78	2,9	0,80	2,2	2,3	2,8
14	576-GE-257B	VENTILATION FAN (AXIAL) FOR M116, M119, M121	MCC24	M403	V	2SPEED	2,2	690	0,82	0,78	2,9	0,80	2,2	2,3	2,8
15	578-GE-246A	VENTILATION FAN (AXIAL) FOR M209A, M226, M209B, M166	MCC24	M505	V	2SPEED	17,6	690	0,91	0,83	19,5	0,80	15,5	15,6	18,6
16	578-GE-246B	VENTILATION FAN (AXIAL) FOR M209A, M226, M209B, M166	MCC24	M504	V	2SPEED	17,6	690	0,91	0,83	19,5	0,80	15,5	15,6	18,6
17	578-GE-272D	THERMAL OIL HEATED VENTING FAN FOR CELLAR DECK/FWD MID/MOONPOOL	MCC24	OUTSIDE	V	DOL	0,25	690	0,71	0,64	0,46	0,80	0,3	0,4	0,4
18	578-GE-272E	THERMAL OIL HEATED VENTING FAN FOR CELLAR DECK/FWD STBD/MOONPOOL	MCC24	OUTSIDE	V	DOL	0,25	690	0,71	0,64	0,46	0,80	0,3	0,4	0,4
19	841-IF-001-B	THERMAL OIL LOACL CONTROL PANEL	MCC24	A/F/M152B	M	FDR	57KVA	690	0,95	0,85	47,7	0,90	45,9	45,2	54,0
23	876-ER-V02	VFD FOR FWD SB ENGINE ROOM VENTILATION FAN	MCC24	F/S/M121	V	FDR	220,0	690	0,95	0,80	242,2	0,60	138,9	145,3	173,7
24	571-GE-306A	VENTILATION FAN (AXIAL) FOR M113	MCC24	M703	V	DOL	0,6	690	0,78	0,79	0,86	0,80	0,6	0,7	0,8
25	571-GE-306B	VENTILATION FAN (AXIAL) FOR M602	MCC24	A801R	V	DOL	0,4	690	0,70	0,82	0,58	0,80	0,5	0,5	0,6
26	570-GE-134B	VENTILATION FAN (AXIAL) FOR COLUMN & PONTOON (FWD/STBD)	MCC24	M333	V	2SPEED	20,4	690	0,91	0,85	22,0	0,80	17,9	17,6	21,0
28	576-GE-145A	VENTILATION FAN (AXIAL) FOR M163, M224	MCC24	M332 OUT	V	DOL	3,3	690	0,83	0,87	3,85	0,80	3,2	3,1	3,7
29	576-GE-145B	VENTILATION FAN (AXIAL) FOR M163, M224	MCC24	M332 OUT	V	DOL	4,4	690	0,83	0,84	5,30	0,80	4,3	4,2	5,1
30	576-EN-H02	LCP FOR ELECTRIC HEATER 576-FE-436A	MCC24	87S	V	FDR	39,0	690	0,90	0,88	32,6	0,80	34,7	33,0	39,4
		Total consumption of MCC 24					837				835		653	627	749
MARINE, 690VAC MCC 31, 873-EN-M11															
1	501-IE-001-C	LIFE BOAT DAVIT NO.3 CONTROL PANEL	MCC31	N/A	M	FDR	34,5	690	0,90	0,85	37,7	0,80	30,7	30,2	36,1
2	601-EC-001-E	MAIN ENGINE E TURNING GEAR UNIT	MCC31	A/P/M147A	M	FDR	2,5	690	0,63	0,67	5,0	0,80	3,2	4,0	4,7
3	601-EC-001-F	MAIN ENGINE F TURNING GEAR UNIT	MCC31	A/P/M147A	M	FDR	2,5	690	0,63	0,67	5,0	0,80	3,2	4,0	4,7
4	601-EC-002-E	MAIN ENGINE E PRE-LUBRICATION OIL PUMP	MCC31	A/P/M147A	M	FDR	22,0	690	0,94	0,82	24,0	1,00	0	0	0,0
5	601-EC-002-F	MAIN ENGINE F PRE-LUBRICATION OIL PUMP	MCC31	A/P/M147A	M	FDR	22,0	690	0,94	0,82	24,0	1,00	0	0	0,0
6	635-EC-001-D	THRUSTER D LUBRICATION UNIT	MCC31	F/S/11S	T	FDR	5,2	690	0,88	0,91	5,4	0,80	4,7	4,3	5,2
7	635-EC-002-DA	THRUSTER D HYDRAULIC POWER PACK 1	MCC31	F/S/11S	T	FDR	90,0	690	0,88	0,93	92,1	0,80	81,8	73,7	88,1
8	635-EC-002-DB	THRUSTER D HYDRAULIC POWER PACK 2	MCC31	F/S/11S	T	FDR	90,0	690	0,88	0,93	92,1	0,80	81,8	73,7	88,1
9	703-PG-003-E	F.O. CIRCULATION PUMP E	MCC31	A/P/M147B	M	DOL	8,6	690	0,90	0,91	8,8	0,80	7,7	7,1	8,4
10	711-PG-001-B	DIRTY LUBE OIL TRANSFER PUMP	MCC31	A/P/M147A	M	DOL	2,5	690	0,84	0,86	2,9	0,80	2,4	2,3	2,8
11	711-PG-002	CLEAN LUB OIL TRANSFER PUMP	MCC31	A/P/M142	M	DOL	2,5	690	0,84	0,86	2,9	0,80	2,4	2,3	2,8
12	721-PA-002-B	AFT MAIN SEA COOLING WATER PUMP	MCC31	A/P/26P	M	SFT	152,0	690	0,92	0,90	154,2	0,80	132,7	123,4	147,4
13	721-PA-005-D	THRUSTER SEA WATER COOLING PUMP	MCC31	F/S/11S	T	DOL	12,7	690	0,88	0,89	13,5	0,80	11,5	10,8	12,9
14	722-PA-002-B	FRESH WATER COOLING PUMP	MCC31	A/P/M147A	M	DOL	63,0	690	0,92	0,89	64,2	0,80	54,7	51,4	61,4
15	722-IF-001-C	LT-PREHEATING UNIT	MCC31	A/P/M147A	M	FDR	3,0	690	0,70	0,80	4,5	1,00	4,3	4,5	5,4
16	722-IF-002-C	HT-PREHEATING UNIT	MCC31	A/P/M147A	M	FDR	108,8	690	0,95	0,90	106,4	1,00	114,5	106,4	127,2
17	761-EC-001-A	FRESH WATER GENERATOR (761-XX-001-A)	MCC31	A/P/M135A	M	FDR	101,0	690	0,94	0,89	100,6	0,80	85,6	80,5	96,2
18	801-PA-001-H	BALLAST PUMP, SUBMERSIBLE H	MCC31	A/S/26S	M	DOL	84,0	690	0,94	0,87	85,9	0,80	71,5	68,8	82,2
19	804-PA-004-A	SUMP TRANSFER PUMP	MCC31	A/S/M164	M	DOL	3,5	690	0,82	0,91	3,9	0,80	3,4	3,1	3,7
20	804-PA-004-B	SUMP TRANSFER PUMP	MCC31	A/S/M164	M	DOL	3,5	690	0,82	0,91	3,9	0,80	3,4	3,1	3,7
21	804-PA-005-B	CLEAN SUMP TRANSFER PUMP	MCC31	A/P/70P	M	DOL	8,6	690	0,88	0,91	8,98	0,80	7,8	7,2	8,6
22	804-PG-002-C	DRAIN TRANSFER PUMP	MCC31	M151	M	DOL	1,5	690	0,80	0,79	1,98	0,80	1,5	1,6	1,9
23	804-VA-001	EMULSION SEPERATOR	MCC31	A/S/M164	M	FDR	4,0	690	1,00	0,85	3,9	1,00	4,0	3,9	4,7
24	813-PA-001-D	MAIN FIRE PUMP	MCC31	A/S/26S	M	SFT	400,0	690	0,96	0,87	400,0	0,80	332,7	320,0	382,4
25	819-XX-001	WATER MIST PUMP & VALVE UNIT	MCC31	A/P/M135A	M	FDR	5,5	690	1,00	0,85	5,4	1,00	5,5	5,4	6,5
26	861-PA-001-F	11KV GENERATOR-F DE L/O PUMP	MCC31	A/P/M147A	M	DOL	1,75	690	0,84	0,80	2,2	0,80	1,7	1,7	2,1
27	861-PA-002-F	11KV GENERATOR-F NDE L/O PUMP	MCC31	A/P/M147A	M	DOL	1,75	690	0,84	0,80	2,2	0,80	1,7	1,7	2,1
28	865-ET-T04-DA	THRUSTER XFMR D HEAT EXCHAGER FAN	MCC31	F/S/11S	T	FDR	4,0	690	0,89	0,84	4,5	0,80	3,6	3,6	4,3
29	866-ER-UC3	11KV SWBD HS3 UPS FOR CONTROL POWER	MCC31	A/P/M148	M	FDR	13,8KVA	690	0,98	0,85	11,6	0,80	9,6	9,4	11,3
30	867-EH-001-DA	THRUSTER VFD D WATER COOLING UNIT	MCC31	F/S/11S	T	FDR	9,2	690	0,90	0,89	9,6	0,80	8,2	7,7	9,2
31	867-EH-001-DB	THRUSTER VFD D PRECHARGING AND MISC. LV LOADS	MCC31	F/S/11S	T	FDR	10,2	690	0,98	0,85	10,2	0,50	5,2	5,1	6,1
32	875-EN-P13	PANEL BOARD FOR WATER TIGHT DOOR	MCC31	M137	M	FDR	7,3	690	0,81	0,72	10,5	0,60	5,4	6,3	7,5
		Total consumption of MCC 31					1 281				1 308		1 086	1 027	1 228
MARINE, 690VAC MCC 32, 873-EN-M10															
1	324-EM113	TRANSFER PUMP NO.1 BRINE DUTY	MCC32	A/P/26P	D	DOL	98,0	690	0,95	0,86	100,2	0,90	92,6	90,1	107,7
2	874-JB-007	POWER J/B FOR R.O.V UNIT	MCC32	N/A	D	FDR	200,0	690	0,95	0,85	207,2	0,80	168,4	165,8	198,1
3	444-MQ-003	HP HOT WATER WASH DOWN PUMP UNIT	MCC32	A/P/M135A	M	FDR	80,0	690	0,95	0,85	82,9	0,80	67,4	66,3	79,3
4	703-PG-003-F	F.O. CIRCULATION PUMP F	MCC32	A/P/M147B	M	DOL	8,6	690	0,90	0,91	8,8	0,80	7,7	7,1	8,4
5	721-PA-002-A	AFT MAIN SEA COOLING WATER PUMP	MCC32	A/P/26P	M	SFT	152,0	690	0,92	0,90	154,2	0,80	132,7	123,4	147,4
6	721-PA-005-F	THRUSTER SEA WATER COOLING PUMP	MCC32	A/P/30P	T	DOL	12,7	690	0,88	0,89	13,5	0,80	11,5	10,8	12,9
7	722-PA-002-A	FRESH WATER COOLING PUMP	MCC32	A/P/M147A	M	DOL	63,0	690	0,92	0,89	64,2	0,80	54,7	51,4	61,4
8	733-KC-001-B	SERVICE AIR COMPRESSOR	MCC32	A/P/M135B	M	FDR	151,0	690	0,88	0,86	167,9	0,80	137,3	134,3	160,6
9	801-PA-001-E	BALLAST PUMP, SUBMERSIBLE E	MCC32	A/P/26P	M	DOL	84,0	690	0,94	0,87	85,9	0,80	71,5	68,8	82,2

S/N	Equipment number	TRANSIT + DP 75% DF	KVA	kW	MOORING + THR ASST 50% DF	KVA	kW	DRILLING + DP 50% DF	KVA	kW	DRILLING + DP 75% DF	KVA	kW	BK REAM'G + DP 75% DF	KVA	kW	WELL CIRC'N AFTER DP MAX SINGLE FAILURE DF	KVA	kW	DEAD SHIP POWER DF	KVA	kW	EMERGENCY MODE DF	KVA	kW	REMARK	Reference Low Speed Rating
16	325-EM105D	0	0	0,0	100	1	0,8	100	1	0,8	100	1	0,8	100	1	0,8	50	1	0,4	0	0	0	0	0	0		
17	325-EM114	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	35	19	15,4	0	0	0	0	0	0		
18	325-EM118	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	35	19	15,4	0	0	0	0	0	0		
19	332-EM100A	0	0	0,0	50	55	46,8	50	55	46,8	50	55	46,8	50	55	46,8	50	55	46,8	0	0	0	0	0	0		
20	332-EN101	0	0	0,0	10	4	3,4	10	4	3,4	10	4	3,4	10	4	3,4	10	4	3,4	0	0	0	0	0	0		
21	332-EN110	0	0	0,0	33	25	21,1	33	25	21,1	33	25	21,1	33	25	21,1	33	25	21,1	0	0	0	0	0	0		
23	332-UL100A	0	0	0,0	50	9	7,7	50	9	7,7	50	9	7,7	50	9	7,7	100	18	15,4	0	0	0	0	0	0		
24	343-EM101D	0	0	0,0	30	42	36,3	30	42	36,3	30	42	36,3	30	42	36,3	15	21	18,2	0	0	0	0	0	0		
25	343-EM101E	0	0	0,0	30	42	36,3	30	42	36,3	30	42	36,3	30	42	36,3	15	21	18,2	0	0	0	0	0	0		
26	343-EM101F	0	0	0,0	30	42	36,3	30	42	36,3	30	42	36,3	30	42	36,3	15	21	18,2	0	0	0	0	0	0		
27	343-EM102B	0	0	0,0	50	6	4,9	50	6	4,9	50	6	4,9	50	6	4,9	50	6	4,9	0	0	0	0	0	0		
28	865-ET-T03-B	0	0	0,0	50	2	1,8	100	4	3,6	100	4	3,6	100	4	3,6	100	4	3,6	0	0	0	0	0	0		
29	866-EY-004-A	0	0	0,0	50	55	46,2	50	55	46,2	50	55	46,2	50	55	46,2	50	55	46,2	0	0	0	0	0	0		
30	867-EN-S02-A	0	0	0,0	50	4	3,5	50	4	3,5	50	4	3,5	50	4	3,5	50	4	3,5	0	0	0	0	0	0		
31	867-EN-S01-B	0	0	0,0	50	4	3,5	50	4	3,5	50	4	3,5	50	4	3,5	50	4	3,5	0	0	0	0	0	0		
	Total MCC 23		-	-		371	318		373	320		373	320		398	342		304	259		0	0		2	2		
MARINE, 690VAC MCC 24, 873-EN-M09																											
1	570-GA-134A	100	46	40,9	100	46	40,9	100	46	40,9	100	46	40,9	100	46	40,9	100	46	40,9	0	0	0	0	0	0		7KW
3	571-GE-305E	100	0	0,4	100	0	0,4	100	0	0,4	100	0	0,4	100	0	0,4	100	0	0,4	0	0	0	0	0	0		
4	571-GE-305F	100	0	0,4	100	0	0,4	100	0	0,4	100	0	0,4	100	0	0,4	100	0	0,4	0	0	0	0	0	0		
5	571-GE-306C	100	4	3,2	100	4	3,2	100	4	3,2	100	4	3,2	100	4	3,2	100	4	3,2	0	0	0	0	0	0		
6	571-HE-001B	25	78	71,5	25	78	71,5	50	156	143,0	50	156	143,0	50	156	143,0	25	78	71,5	0	0	0	0	0	0		
7	571-PA-001B	50	37	33,3	50	37	33,3	50	37	33,3	50	37	33,3	50	37	33,3	50	37	33,3	0	0	0	0	0	0		
10	570-GE-246A	100	5	4,4	100	5	4,4	100	5	4,4	100	5	4,4	100	5	4,4	100	5	4,4	0	0	0	0	0	0		1.2KW
11	575-GE-246B	100	3	2,9	100	3	2,9	100	3	2,9	100	3	2,9	100	3	2,9	100	3	2,9	0	0	0	0	0	0		0.6KW
12	576-GD-137A	100	1	1,2	100	1	1,2	100	1	1,2	100	1	1,2	100	1	1,2	100	1	1,2	0	0	0	0	0	0		0.25KW
13	576-GE-257A	100	3	2,2	100	3	2,2	100	3	2,2	100	3	2,2	100	3	2,2	100	3	2,2	0	0	0	100	3	2		0.45KW
14	576-GE-257B	100	3	2,2	100	3	2,2	100	3	2,2	100	3	2,2	100	3	2,2	100	3	2,2	0	0	0	100	3	2		0.45KW
15	578-GE-246A	100	19	15,5	100	19	15,5	100	19	15,5	100	19	15,5	100	19	15,5	100	19	15,5	0	0	0	0	0	0		5.2KW
16	578-GE-246B	50	9	7,7	50	9	7,7	50	9	7,7	50	9	7,7	50	9	7,7	50	9	7,7	0	0	0	0	0	0		5.2KW
17	578-GE-272D	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	0	0	0	0	0	0		
18	578-GE-272E	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	0	0	0	0	0	0		
19	841-IF-001-B	25	14	11,5	25	14	11,5	25	14	11,5	25	14	11,5	25	14	11,5	25	14	11,5	0	0	0	0	0	0		
23	876-ER-V02	100	174	138,9	100	174	138,9	100	174	138,9	100	174	138,9	100	174	138,9	100	174	138,9	0	0	0	100	275	220		
24	571-GE-306A	100	1	0,6	100	1	0,6	100	1	0,6	100	1	0,6	100	1	0,6	100	1	0,6	0	0	0	0	0	0		
25	571-GE-306B	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	0	0	0	0	0	0		
26	570-GE-134B	100	21	17,9	100	21	17,9	100	21	17,9	100	21	17,9	100	21	17,9	100	21	17,9	0	0	0	0	0	0		5.8KW
28	576-GE-145A	100	4	3,2	100	4	3,2	100	4	3,2	100	4	3,2	100	4	3,2	100	4	3,2	0	0	0	0	0	0		
29	576-GE-145B	100	5	4,3	100	5	4,3	100	5	4,3	100	5	4,3	100	5	4,3	100	5	4,3	0	0	0	0	0	0		
30	576-EN-H02	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
	Total MCC 24		428	363		428	363		506	435		506	435		506	435		428	363		-	-		281	224		
MARINE, 690VAC MCC 31, 873-EN-M11																											
1	501-IE-001-C	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
2	601-EC-001-E	25	1	0,8	25	1	0,8	25	1	0,8	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
3	601-EC-001-F	25	1	0,8	25	1	0,8	25	1	0,8	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
4	601-EC-002-E	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	0	0	0	0	0	0		
5	601-EC-002-F	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	0	0	0	0	0	0		
6	635-EC-001-D	100	5	4,7	100	5	4,7	100	5	4,7	100	5	4,7	100	5	4,7	100	5	4,7	0	0	0	0	0	0		
7	635-EC-002-DA	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	0	0	0	0	0	0		
8	635-EC-002-DB	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	0	0	0	0	0	0		
9	703-PG-003-E	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	0	0	0	100	9	9		
10	711-PG-001-B	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
11	711-PG-002	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
12	721-PA-002-B	50	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	100	147	132,7	0	0	0	100	169	152		
13	721-PA-005-D	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	0	0	0	0	0	0		
14	722-PA-002-B	25	15	13,7	25	15	13,7	25	15	13,7	50	31	27,3	50	31	27,3	50	31	27,3	0	0	0	0	0	0		
15	722-IF-001-C	25	1	1,1	25	1	1,1	25	1	1,1	25	1	1,1	25	1	1,1	25	1	1,1	0	0	0	0	0	0		
16	722-IF-002-C	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	0	0	0	0	0	0		
17	761-EC-001-A	50	48	42,8	50	48	42,8	50	48	42,8	50	48	42,8	50	48	42,8	0	0	0,0	0	0	0	0	0	0		
18	801-PA-001-H	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	100	97	84		
19	804-PA-004-A	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
20	804-PA-004-B	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
21	804-PA-005-B	5	0	0,4	5	0	0,4	5	0	0,4	5	0	0,4	5	0	0,4	5	0	0,4	0	0	0	0	0	0		
22	804-PG-002-C	5	0	0,1	5	0	0,1	5	0	0,1	5	0	0,1	5	0	0,1	0	0	0,0	0	0	0	0	0	0		
23	804-VA-001	10	0	0,4	10	0	0,4	10	0	0,4	10	0	0,4	10	0	0,4	10	0	0,4	0	0	0	0	0	0		
24	813-PA-001-D	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	100	460	400		
25	819-XX-001	10	1	0,6	10	1	0,6	10	1	0,6	10	1	0,6	10	1	0,6	10	1	0,6	0	0	0	100	6	6		
26	861-PA-001-F	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	0	0	0	100	2	2		
27	861-PA-002-F	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	0	0	0	100	2	2		
28	865-ET-T04-DA	50	2	1,8	50	2	1,8	50	2	1,8	50	2	1,8	50	2	1,8	50	2	1,8	0	0	0	0	0	0		
29	866-ER-UC3	100	11	9,6	100	11	9,6	100	11	9,6	100	11	9,6	100	11	9,6	100	11	9,6	0	0	0	100	16	13		
30	867-EH-001-DA	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	0	0	0	0	0	0		
31	867-EH-001-DB	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	0	0	0	0	0	0		
32	875-EN-P13	100	8	5,4	100	8	5,4	100	8	5,4	100	8	5,4	100	8	5,4	100	8	5,4	0	0	0	0	0	0		
	Total MCC 31		403	364		403	364		403	364		416	376		416	376		441	399		0	0		761	667		
MARINE, 690VAC MCC 32, 873-EN-M10																											
1	324-EM113	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
2	874-JB-007	0	0	0,0	25	50	42,1	25	50	42,1	25	50	42,1	25	50	42,1	0	0	0,0	0	0	0	0	0	0		
3	444-MQ-003	10	8	6,7	10	8	6,7	10	8	6,7	10	8	6,7	10	8	6,7	10	8	6,7	0	0	0	0	0	0		
4	703-PG-003-F	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	0	0	0	0	0	0		
5	721-PA-002-A	50	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	100	147	132,7	0	0	0	0	0	0		
6	721-PA-005-F	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	0	0	0	0	0	0		
7	722-PA-002-A	25	15	13,7	25	15	13,7	25	15	13,7	50	31	27,3	50	31	27,3	50	31	27,3	0	0	0	100	71	63		
8	733-KC-001-B	50	80	68,6	50	80	68,6	50	80	68,6	50	80	68,6	50	80	68,6	50	80	68,6	0	0	0	0	0	0		
9	801-PA-001-E	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		

Odfjell G' F
Project NO: 3025

ELECTRICAL LOAD ANALYSIS

S/N	Equipment number	DESCRIPTION	MCC	ROOM NO	SER-VICE	STARTER TYPE	CONNECTED LOAD kW	VOLT	EFF	PF	AMP	L.F.	kW	AMP	kVA
10	803-PA-001-C	BILGE PUMP, PONTOON	MCC32	A/P/26P	M	DOL	12,7	690	0,88	0,90	13,4	0,80	11,5	10,7	12,8
11	804-PG-002-A	DRAIN TRANSFER PUMP	MCC32	N/A	M	DOL	1,5	690	0,80	0,79	1,98	0,80	1,5	1,6	1,9
12	813-PA-001-A	MAIN FIRE PUMP	MCC32	A/P/26P	M	SFT	400,0	690	0,96	0,87	400,0	0,80	332,7	320,0	382,4
13	813-PA-002	FIRE JOCKEY PUMP	MCC32	A/P/26P	M	DOL	42,6	690	0,91	0,91	42,7	0,80	37,3	34,1	40,8
14	861-PA-001-E	11KV GENERATOR-E DE L/O PUMP	MCC32	A/P/M147A	M	DOL	1,75	690	0,84	0,80	2,2	0,80	1,7	1,7	2,1
15	861-PA-002-E	11KV GENERATOR-E NDE L/O PUMP	MCC32	A/P/M147A	M	DOL	1,75	690	0,84	0,80	2,2	0,80	1,7	1,7	2,1
16	875-EN-P11	PANEL BOARD FOR WATER TIGHT DOOR (REDUNDANCY)	MCC32	M101	M	FDR	6,0	690	0,77	0,68	9,6	0,60	4,7	5,8	6,9
	875-EN-M32, Consumption of Panel board 32														
1	278-EU-002-C	ICCP POWER CONTROL UNIT	MPB32	N/A	M	FDR	10,5	690	0,97	0,95	9,5	0,50	5,4	4,8	5,7
2	431-IC-004-C	START CABINET FOR WINDLASS	MPB32	N/A	M	FDR	13,3	690	0,63	0,55	32,0	0,80	16,8	25,6	30,6
3	635-EC-001-F	THRUSTER F LUBRICATION UNIT	MPB32	A/P/30P	T	FDR	5,2	690	0,88	0,91	5,4	0,80	4,7	4,3	5,2
4	635-EC-002-FA	THRUSTER F HYDRAULIC POWER PACK 1	MPB32	A/P/30P	T	FDR	90,0	690	0,88	0,93	92,1	0,80	81,8	73,7	88,1
5	635-EC-002-FB	THRUSTER F HYDRAULIC POWER PACK 2	MPB32	A/P/30P	T	FDR	90,0	690	0,88	0,93	92,1	0,80	81,8	73,7	88,1
6	733-VK-001-A	SERVICE AIR DRYER	MPB32	A/P/M135B	M	FDR	25,0	690	0,99	0,99	21,3	1,00	25,3	21,3	25,5
7	831-IH-001-CA	HPP MOTOR FOR REMOTE CONTROL VALVE	MPB32	M140	M	FDR	18,0	690	0,95	0,80	19,8	0,80	15,2	15,9	18,9
8	831-IH-001-DB	HPP MOTOR FOR REMOTE CONTROL VALVE	MPB32	M161	M	FDR	18,0	690	0,95	0,80	19,8	0,80	15,2	15,9	18,9
9	865-ET-T04-FA	THRUSTER XFMR F HEAT EXCHAGER FAN	MPB32	A/P/30P	T	FDR	3,5	690	0,89	0,84	3,9	0,80	3,1	3,1	3,7
10	867-EH-001-FA	THRUSTER VFD F WATER COOLING UNIT	MPB32	A/P/30P	T	FDR	9,2	690	0,90	0,89	9,6	0,80	8,2	7,7	9,2
11	867-EH-001-FB	THRUSTER VFD F PRECHARGING AND MISC. LV LOADS	MPB32	A/P/30P	T	FDR	10,2	690	0,98	0,85	10,2	0,50	5,2	5,1	6,1
		Total consumption of MCC 32					***1 609***				**1 673**		**1 397**	**1 345**	**1 607**
	DRILLING, 690VAC MCC 33, 873-EN-M15														
1	311-ER001A	UPS1 40KVA MAIN SUPPLY	MCC33	M221A	D	FDR	40,0KVA	690	0,95	0,80	33,5	0,80	26,9	28,2	33,7
2	311-ER002B	UPS2 40KVA ALTERNATE SUPPLY	MCC33	M221B	D	FDR	40,0KVA	690	0,95	0,80	33,5	0,80	26,9	28,2	33,7
3	312-EM252A	AHD D2 DRAWWORKS MW BLOWERMOTOR#A	MCC33	N/A	D	DOL	63,0	690	0,93	0,87	65,2	0,80	54,2	52,1	62,3
4	312-EM253A	AHD D2 DRAWWORKS MW HPUMOTOR#A	MCC33	N/A	D	DOL	4,0	690	0,89	0,85	4,4	0,70	3,1	3,1	3,7
5	312-EM254A	AHD D2 DRAWWORKS MW LUBEOILMOTOR#A	MCC33	N/A	D	DOL	5,5	690	0,90	0,87	5,9	0,70	4,3	4,1	4,9
6	313-EM103	TOP DRIVE BLOWER MOTOR A	MCC33	N/A	D	DOL	2,8	690	0,95	0,85	2,9	0,80	2,4	2,3	2,8
7	313-EM105	TOP DRIVE COOLING FAN MOTOR	MCC33	N/A	D	DOL	0,8	690	0,79	0,80	1,0	0,80	0,8	0,8	1,0
8	313-EM106	TOP DRIVE SUMP MOTOR	MCC33	N/A	D	DOL	2,5	690	0,86	0,87	2,8	0,80	2,3	2,2	2,7
9	317-IB002	MANRIDER WINCH PMW-150 #1	MCC33	M606	D	FDR	6,0	690	0,95	0,97	5,4	0,60	3,8	3,3	3,9
10	317-IB022	MANRIDER WINCH PMW-150 #3	MCC33	M210	D	FDR	6,0	690	0,95	0,97	5,4	0,60	3,8	3,3	3,9
11	324-EM102	MUD MIX PUMP NO.2 - WBM DUTY	MCC33	M151	D	DOL	67,0	690	0,95	0,86	68,5	0,90	63,3	61,6	73,7
12	324-EM104	MUD TRANSFER PUMP NO.2 - WBM DUTY	MCC33	M151	D	DOL	67,0	690	0,95	0,86	68,5	0,90	63,3	61,6	73,7
13	324-EM121	AGITATOR RESERVE/BRINE TANK NO.5	MCC33	N/A	D	DOL	15,0	690	0,93	0,82	16,5	0,80	13,0	13,2	15,8
14	324-EM122	AGITATOR RESERVE/BRINE TANK NO.4	MCC33	N/A	D	DOL	13,2	690	0,93	0,82	14,5	0,80	11,4	11,6	13,9
15	324-EM123	AGITATOR RESERVE/BRINE TANK NO.3	MCC33	N/A	D	DOL	15,0	690	0,93	0,82	16,5	0,80	13,0	13,2	15,8
16	324-EM124	AGITATOR RESERVE/BRINE TANK NO.2	MCC33	N/A	D	DOL	13,5	690	0,93	0,82	14,88	0,80	11,7	11,9	14,2
17	324-EM125	AGITATOR RESERVE/BRINE TANK NO.1	MCC33	N/A	D	DOL	13,5	690	0,93	0,82	14,9	0,80	11,7	11,9	14,2
18	324-EM126	AGITATOR WBM ACTIVE SUCTION TANK	MCC33	N/A	D	DOL	13,5	690	0,93	0,82	14,88	0,80	11,7	11,9	14,2
19	324-EM127	AGITATOR WBM ACTIVE MIX TANK	MCC33	N/A	D	DOL	13,5	690	0,93	0,82	14,88	0,80	11,7	11,9	14,2
20	324-EM129	AGITATOR WBM SLUG TANK	MCC33	N/A	D	DOL	0,8	690	0,86	0,82	0,9	0,80	0,7	0,7	0,8
21	324-EM141	WASHING MACHINE PUMP WBM PIT TANK	MCC33	M151	D	DOL	9,2	690	0,83	0,82	11,3	0,70	7,7	7,9	9,5
22	325-EM102B	HP MUD PUMP NO. 2, FAN A	MCC33	M151	D	DOL	13,0	690	0,92	0,83	14,2	0,80	11,3	11,4	13,6
23	325-EM103B	HP MUD PUMP NO. 2, FAN B	MCC33	M151	D	DOL	13,0	690	0,92	0,83	14,2	0,80	11,3	11,4	13,6
24	325-EM104B	HP MUD PUMP NO. 2, LINER SPRAY PUMP MOTOR	MCC33	M151	D	DOL	2,3	690	0,83	0,82	2,8	0,60	1,6	1,7	2,0
25	325-EM105B	HP MUD PUMP NO. 2, LUBE OIL MOTOR	MCC33	M151	D	DOL	1,1	690	0,78	0,80	1,5	0,60	0,8	0,9	1,1
26	325-EM112	MUD CHARGE PUMP NO. 2 STANDBY	MCC33	M151	D	DOL	52,0	690	0,95	0,83	55,4	0,80	43,9	44,3	52,9
27	325-EM116	MUD CHARGE PUMP NO. 6 STANDBY	MCC33	M151	D	DOL	52,0	690	0,95	0,83	55,4	0,80	43,9	44,3	52,9
28	326-EM107A	VACUUM DEGASSER NO.1 (MOTOR A)	MCC33	F/P/M318	D	DOL	18,5	690	0,93	0,82	20,4	0,80	16,0	16,3	19,5
29	326-EM107B	VACUUM DEGASSER NO.1 (MOTOR B)	MCC33	F/P/M318	D	DOL	4,0	690	0,85	0,80	5,0	0,80	3,8	4,0	4,7
30	326-EM103	DESILTER PUMP	MCC33	A/P/M318	D	DOL	67,0	690	0,94	0,86	69,1	0,80	56,8	55,2	66,0
31	326-EM109	GUMBO BOX (CONVEYOR)	MCC33	N/A	D	DOL	0,8	690	0,75	0,80	1,0	0,80	0,8	0,8	1,0
32	326-EM201A&B	CENTRIFUGE NO.1 - FUTURE OPTION	MCC33	M318	D	FDR	30,0	690	0,93	0,82	33,1	0,80	25,9	26,4	31,6
33	326-EM111	CENTRIFUGE FEED PUMP NO.1 - FUTURE OPTION	MCC33	M318	D	DOL	7,5	690	0,93	0,82	8,3	0,80	6,5	6,6	7,9
34	326-EM113	CUTTING SCREW CONVEYOR NO.1	MCC33	M318	D	DOL	22,5	690	0,93	0,82	24,8	0,80	19,4	19,8	23,7
35	326-EM115	CUTTING SCREW CONVEYOR NO.3	MCC33	N/A	D	DOL	7,5	690	0,93	0,82	8,3	0,80	6,5	6,6	7,9
36	326-EM001	XFMR FOR CENTRIFUGE FEED PUMP NO.2 - FUTURE OPTION	MCC33	N/A	D	FDR	25,0KVA	690	1,00	1,00	20,9	0,80	20,0	16,7	20,0
37	337-EM101	TRIP TANK PUMP NO.1	MCC33	N/A	D	DOL	52,0	690	0,94	0,86	53,6	0,90	49,6	48,2	57,6
38	874-JB-015	POWER J/B FOR COILED TUBING UNIT	MCC33	M335	D	FDR	10,0	690	0,95	0,85	10,4	0,80	8,4	8,3	9,9
39	361-U201	KNUCLE BOOM CRANE NO. 2	MCC33	N/A	D	FDR	30,0	690	0,95	0,85	31,1	0,70	22,1	21,8	26,0
40	371-EM-001	CEMENTING UNIT HPU MOTOR	MCC33	M315	D	FDR	160,0	690	0,92	0,90	162,6	0,80	139,9	130,1	155,4
41	371-EM-002	CEMENTING UNIT CMS MOTOR	MCC33	M315	D	FDR	30,0	690	0,92	0,85	32,1	0,80	26,1	25,7	30,7
42	371-EM-003-A	CEMENT PUMP A BLOWER	MCC33	M315	D	DOL	13,0	690	0,93	0,90	13,0	0,80	11,2	10,4	12,4
43	865-ET-T03-CA	DRILLING XFMR C HEAT EXCHANGER FAN	MCC33	M221A	D	FDR	4,0	690	0,89	0,84	4,5	0,80	3,6	3,6	4,3
44	867-EN-S03-A	DSWB 2A COOLING PUMP MOTOR A	MCC33	A/P/M221A	D	DOL	7,5	690	0,86	0,86	8,5	0,80	7,0	6,8	8,1
45	867-EN-S04-B	DSWB 2B COOLING PUMP MOTOR B	MCC33	A/P/M221B	D	DOL	7,5	690	0,86	0,86	8,5	0,80	7,0	6,8	8,1
46	455-EX-001	POWER SUPPLY FOR FORK LIFT	MCC33	A/S/M325	D	FDR	20,0	690	0,95	0,95	18,5	0,80	16,8	14,8	17,7
48	390-EM201	DRAIN SYSTEM FLUSH PUMP MOTOR	MCC33	N/A	D	DOL	3,5	690	0,82	0,91	3,9	0,80	3,4	3,1	3,7
		Total consumption of MCC 33					***1 065***				**1 097**		**911**	**891**	**1 065**
	MARINE, 690VAC MCC 34, 873-EN-M12														
1	570-GA-138A	JUNCTION BOX FOR AHU 690V (570-JB-006)	MCC34	M220	V	2SPEED	46,0	690	0,90	0,88	48,6	0,80	40,9	38,9	46,5
3	570-GE-138B	VENTILATION FAN (AXIAL) FOR COLUMN & PONTOON (AFT/PORT)	MCC34	M336R	V	2SPEED	17,6	690	0,90	0,81	20,2	0,80	15,6	16,2	19,3
6	575-GD-255D	VENTILATION FAN (CENTRIFUGAL) FOR M318	MCC34	N/A	V	DOL	14,0	690	0,90	0,91	14,3	0,80	12,5	11,4	13,7
7	575-GD-255E	VENTILATION FAN (CENTRIFUGAL) FOR M318	MCC34	N/A	V	DOL	14,0	690	0,90	0,91	14,3	0,80	12,5	11,4	13,7
8	575-GE-255A	VENTILATION FAN (AXIAL) FOR M318	MCC34	N/A	V	DOL	5,8	690	0,85	0,88	6,5	0,80	5,5	5,2	6,2
9	575-GE-255B	VENTILATION FAN (AXIAL) FOR M318	MCC34	N/A	V	DOL	5,8	690	0,85	0,88	6,5	0,80	5,5	5,2	6,2
10	575-GE-255C	VENTILATION FAN (AXIAL) FOR REST ROOM	MCC34	N/A	V	DOL	0,4	690	0,70	0,82	0,58	0,80	0,5	0,5	0,6
11	576-GD-260D	VENTILATION FAN (CENTRIFUGAL) FOR M334	MCC34	M334	V	2SPEED	1,1	690	0,71	0,94	1,38	0,80	1,2	1,1	1,3
12	576-GE-141A	VENTILATION FAN (AXIAL) FOR M135B	MCC34	A/P/UPPER	V	2SPEED	7,5	690	0,87	0,88	8,2	0,80	6,9	6,5	7,8
13	576-GE-250A	VENTILATION FAN (AXIAL) FOR M221A, M146, M150A, M148	MCC34	M334	V	2SPEED	3,6	690	0,78	0,87	4,5	0,80	3,7	3,6	4,3
14	576-GE-260A	VENTILATION FAN (AXIAL) FOR M334, M314	MCC34	M334	V	2SPEED	2,2	690	0,82	0,78	2,9	0,80	2,2	2,3	2,8
15	576-GE-260B	VENTILATION FAN (AXIAL) FOR M311A	MCC34	M311AR	V	DOL	0,29	690	0,70	0,77	0,45	0,80	0,3	0,4	0,4
16	576-GE-260C	VENTILATION FAN (AXIAL) FOR M311	MCC34	M311R	V	DOL	0,29	690	0,70	0,77	0,45	0,80	0,3	0,4	0,4
17	576-GE-261A	VENTILATION FAN (AXIAL) FOR M312	MCC34	M312	V	DOL	0,29	690	0,70	0,77	0,45	0,80	0,3	0,4	0,4
18	576-GE-261B	VENTILATION FAN (AXIAL) FOR M335	MCC34	M335	V	DOL	0,3	690	0,65	0,74	0,52	0,80	0,4	0,4	0,5
19	576-GE-264A	VENTILATION FAN (AXIAL) FOR M605	MCC34	M605	V	DOL	0,6	690	0,74	0,79	0,86	0,80	0,6	0,7	0,8

S/N	Equipment number	TRANSIT + DP 75%			MOORING + THR ASST 50%			DRILLING + DP 50%			DRILLING + DP 75%			BK REAM'G + DP 75%			WELL CIRC'N AFTER DP MAX SINGLE FAILURE			DEAD SHIP POWER			EMERGENCY MODE			REMARK	Reference Low Speed Rating
		DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW	DF	KVA	kW		
10	803-PA-001-C	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
11	804-PG-002-A	5	0	0,1	5	0	0,1	5	0	0,1	5	0	0,1	5	0	0,1	5	0	0,1	0	0	0	0	0	0		
12	813-PA-001-A	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
13	813-PA-002	50	20	18,6	50	20	18,6	50	20	18,6	50	20	18,6	50	20	18,6	50	20	18,6	0	0	0	100	47	43		
14	861-PA-001-E	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	0	0	0	0	0	0		
15	861-PA-002-E	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	0	0	0	0	0	0		
16	875-EN-P11	100	7	4,7	100	7	4,7	100	7	4,7	100	7	4,7	100	7	4,7	100	7	4,7	0	0	0	0	0	0		
	875-EN-M32, Consumption of Panel board 32																										
1	278-EU-002-C	100	6	5,4	100	6	5,4	100	6	5,4	100	6	5,4	100	6	5,4	100	6	5,4	0	0	0	0	0	0		
2	431-IC-004-C	0	0	0,0	60	18	10,1	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
3	635-EC-001-F	100	5	4,7	100	5	4,7	100	5	4,7	100	5	4,7	100	5	4,7	100	5	4,7	0	0	0	0	0	0		
4	635-EC-002-FA	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	0	0	0	0	0	0		
5	635-EC-002-FB	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	0	0	0	0	0	0		
6	733-VK-001-A	50	13	12,6	50	13	12,6	50	13	12,6	50	13	12,6	50	13	12,6	100	26	25,3	0	0	0	0	0	0		
7	831-IH-001-CA	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	0	0	0	100	23	18		
8	831-IH-001-DB	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	0	0	0	0	0	0		
9	865-ET-T04-FA	50	2	1,6	50	2	1,6	50	2	1,6	50	2	1,6	50	2	1,6	50	2	1,6	0	0	0	0	0	0		
10	867-EH-001-FA	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	0	0	0	0	0	0		
11	867-EH-001-FB	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	0	0	0	0	0	0		
	Total consumption of MCC 32		***435***	***392***		***503***	***444***		***484***	***434***		***499***	***447***		***499***	***447***		***536***	***484***		***0***	***0***		***140***	***124***		
	DRILLING, 690VAC MCC 33, 873-EN-M15																										
1	311-ER001A	80	27	21,6	80	27	21,6	80	27	21,6	80	27	21,6	80	27	21,6	80	27	21,6	0	0	0	0	0	0		
2	311-ER002B	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	80	27	21,6	0	0	0	0	0	0		
3	312-EM252A	0	0	0,0	30	19	16,3	30	19	16,3	30	19	16,3	50	31	27,1	0	0	0,0	0	0	0	0	0	0		
4	312-EM253A	0	0	0,0	100	4	3,1	100	4	3,1	100	4	3,1	100	4	3,1	0	0	0,0	0	0	0	0	0	0		
5	312-EM254A	0	0	0,0	100	5	4,3	100	5	4,3	100	5	4,3	100	5	4,3	0	0	0,0	0	0	0	0	0	0		
6	313-EM103	0	0	0,0	70	2	1,7	70	2	1,7	70	2	1,7	70	2	1,7	0	0	0,0	0	0	0	0	0	0		
7	313-EM105	0	0	0,0	70	1	0,5	70	1	0,5	70	1	0,5	70	1	0,5	0	0	0,0	0	0	0	0	0	0		
8	313-EM106	0	0	0,0	70	2	1,6	70	2	1,6	70	2	1,6	70	2	1,6	0	0	0,0	0	0	0	0	0	0		
9	317-IB002	0	0	0,0	5	0	0,2	5	0	0,2	5	0	0,2	5	0	0,2	0	0	0,0	0	0	0	0	0	0		
10	317-IB022	0	0	0,0	5	0	0,2	5	0	0,2	5	0	0,2	5	0	0,2	0	0	0,0	0	0	0	0	0	0		
11	324-EM102	0	0	0,0	20	15	12,7	20	15	12,7	20	15	12,7	20	15	12,7	20	15	12,7	0	0	0	0	0	0		
12	324-EM104	0	0	0,0	20	15	12,7	20	15	12,7	20	15	12,7	20	15	12,7	0	0	0,0	0	0	0	0	0	0		
13	324-EM121	0	0	0,0	50	8	6,5	50	8	6,5	50	8	6,5	50	8	6,5	25	4	3,2	0	0	0	0	0	0		
14	324-EM122	0	0	0,0	50	7	5,7	50	7	5,7	50	7	5,7	50	7	5,7	25	3	2,9	0	0	0	0	0	0		
15	324-EM123	0	0	0,0	50	8	6,5	50	8	6,5	50	8	6,5	50	8	6,5	25	4	3,2	0	0	0	0	0	0		
16	324-EM124	0	0	0,0	50	7	5,8	50	7	5,8	50	7	5,8	50	7	5,8	25	4	2,9	0	0	0	0	0	0		
17	324-EM125	0	0	0,0	50	7	5,8	50	7	5,8	50	7	5,8	50	7	5,8	25	4	2,9	0	0	0	0	0	0		
18	324-EM126	0	0	0,0	50	7	5,8	50	7	5,8	50	7	5,8	50	7	5,8	25	4	2,9	0	0	0	0	0	0		
19	324-EM127	0	0	0,0	50	7	5,8	50	7	5,8	50	7	5,8	50	7	5,8	25	4	2,9	0	0	0	0	0	0		
20	324-EM129	0	0	0,0	50	0	0,3	50	0	0,3	50	0	0,3	50	0	0,3	25	0	0,2	0	0	0	0	0	0		
21	324-EM141	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
22	325-EM102B	0	0	0,0	25	3	2,8	25	3	2,8	25	3	2,8	25	3	2,8	50	7	5,7	0	0	0	0	0	0		
23	325-EM103B	0	0	0,0	25	3	2,8	25	3	2,8	25	3	2,8	25	3	2,8	50	7	5,7	0	0	0	0	0	0		
24	325-EM104B	0	0	0,0	70	1	1,1	100	2	1,6	100	2	1,6	100	2	1,6	50	1	0,8	0	0	0	0	0	0		
25	325-EM105B	0	0	0,0	70	1	0,6	100	1	0,8	100	1	0,8	100	1	0,8	50	1	0,4	0	0	0	0	0	0		
26	325-EM112	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	35	19	15,4	0	0	0	0	0	0		
27	325-EM116	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	35	19	15,4	0	0	0	0	0	0		
28	326-EM107A	0	0	0,0	50	10	8,0	50	10	8,0	50	10	8,0	50	10	8,0	50	10	8,0	0	0	0	0	0	0		
29	326-EM107B	0	0	0,0	50	2	1,9	50	2	1,9	50	2	1,9	50	2	1,9	50	2	1,9	0	0	0	0	0	0		
30	326-EM103	0	0	0,0	50	33	28,4	50	33	28,4	50	33	28,4	50	33	28,4	0	0	0,0	0	0	0	0	0	0		
31	326-EM109	0	0	0,0	70	1	0,6	70	1	0,6	70	1	0,6	70	1	0,6	0	0	0,0	0	0	0	0	0	0		
32	326-EM201A&B	0	0	0,0	50	16	13,0	50	16	13,0	50	16	13,0	50	16	13,0	0	0	0,0	0	0	0	0	0	0		
33	326-EM111	0	0	0,0	50	4	3,2	50	4	3,2	50	4	3,2	50	4	3,2	0	0	0,0	0	0	0	0	0	0		
34	326-EM113	0	0	0,0	50	12	9,7	50	12	9,7	50	12	9,7	50	12	9,7	0	0	0,0	0	0	0	0	0	0		
35	326-EM115	0	0	0,0	50	4	3,2	50	4	3,2	50	4	3,2	50	4	3,2	0	0	0,0	0	0	0	0	0	0		
36	326-EM001	0	0	0,0	50	10	10,0	50	10	10,0	50	10	10,0	50	10	10,0	0	0	0,0	0	0	0	0	0	0		
37	337-EM101	0	0	0,0	50	29	24,8	50	29	24,8	50	29	24,8	50	29	24,8	50	29	24,8	0	0	0	0	0	0		
38	874-JB-015	0	0	0,0	50	5	4,2	50	5	4,2	50	5	4,2	50	5	4,2	50	5	4,2	0	0	0	0	0	0		
39	361-U201	0	0	0,0	50	13	11,1	50	13	11,1	50	13	11,1	50	13	11,1	0	0	0,0	0	0	0	0	0	0		
40	371-EM-001	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
41	371-EM-002	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	100	35	30		
42	371-EM-003-A	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	100	14	13		
43	865-ET-T03-CA	0	0	0,0	50	2	1,8	100	4	3,6	100	4	3,6	100	4	3,6	100	4	3,6	0	0	0	0	0	0		
44	867-EN-S03-A	0	0	0,0	50	4	3,5	50	4	3,5	50	4	3,5	50	4	3,5	50	4	3,5	0	0	0	0	0	0		
45	867-EN-S04-B	0	0	0,0	50	4	3,5	50	4	3,5	50	4	3,5	50	4	3,5	50	4	3,5	0	0	0	0	0	0		
46	455-EX-001	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
48	390-EM201	0	0	0,0	50	2	1,7	50	2	1,7	50	2	1,7	50	2	1,7	25	1	0,9	0	0	0	0	0	0		
	Total consumption of MCC 33		***27***	***22***		***299***	***253***		***302***	***256***		***302***	***256***		***315***	***266***		***206***	***171***		***0***	***0***		***50***	***43***		
	MARINE, 690VAC MCC 34, 873-EN-M12																										
1	570-GA-138A	100	46	40,9	100	46	40,9	100	46	40,9	100	46	40,9	100	46	40,9	100	46	40,9	0	0	0	0	0	0		7KW
3	570-GE-138B	100	19	15,6	100	19	15,6	100	19	15,6	100	19	15,6	100	19	15,6	100	19	15,6	0	0	0	0	0	0		5.2KW
6	575-GD-255D	100	14	12,5	100	14	12,5	100	14	12,5	100	14	12,5	100	14	12,5	100	14	12,5	0	0	0	0	0	0		
7	575-GD-255E	50	7	6,2	50	7	6,2	50	7	6,2	50	7	6,2	50	7	6,2	50	7	6,2	0	0	0	0	0	0		
8	575-GE-255A	100	6	5,5	100	6	5,5	100	6	5,5	100	6	5,5	100	6	5,5	100	6	5,5	0	0	0	0	0	0		
9	575-GE-255B	100	6	5,5	100	6	5,5	100	6	5,5	100	6	5,5	100	6	5,5	100	6	5,5	0	0	0	0	0	0		
10	575-GE-255C	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	0	0	0	0	0	0		
11	576-GD-260D	100	1	1,2	100	1	1,2	100	1	1,2	100	1	1,2	100	1	1,2	100	1	1,2	0	0	0	0	0	0		0.25KW
12	576-GE-141A	100	8	6,9	100	8	6,9	100	8	6,9	100	8	6,9	100	8	6,9	100	8	6,9	0	0	0	0	0	0		2.1KW
13	576-GE-250A	100	4	3,7	100	4	3,7	100	4	3,7	100	4	3,7	100	4	3,7	100	4	3,7	0	0	0	100	4	4		0.9KW
14	576-GE-260A	100	3	2,2	100	3	2,2	100	3	2,2	100	3	2,2	100	3	2,2	100	3	2,2	0	0	0	0	0	0		0.45KW
15	576-GE-260B	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	0	0	0	0	0	0		
16	576-GE-260C	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	0	0	0	0	0	0		
17	576-GE-261A	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	0	0	0	0	0	0		
18	576-GE-261B	100	0	0,4	100	0	0,4	100	0	0,4	100	0	0,4	100	0	0,4	100	0	0,4	0	0	0	0	0	0		
19	576-GE-264A	100	1	0,6	100	1	0,6	100	1	0,6	100	1	0,6	100	1	0,6	100	1	0,6	0	0	0	0	0	0		

Ottfjell G F
Project NO: 3025

ELECTRICAL LOAD ANALYSIS

S/N	Equipment number	DESCRIPTION	MCC	ROOM NO.	SER-VICE	STARTER TYPE	CONNECTED LOAD						L.F.				TRANSIT + DP 75%			MOORING + THR ASST 50%			DRILLING + DP 90%			DRILLING + DP 75%			BK REAM'G + DP 75%			WELL CIR/CN AFTER DP MAX SINGLE FAILURE			DEAD SHIP POWER			EMERGENCY MODE			REMARK	Reference Low Speed Rating
							kW	VOLT	EFF	PF	AMP			kW	AMP	kVA	DF	kVA	kW	DF	kVA	kW	DF	kVA	kW	DF	kVA	kW	DF	kVA	kW	DF	kVA	kW	DF	kVA	kW	DF	kVA	kW		
20	576-GE-272H	THERMAL OIL HEATED VENTING FAN FOR DRILL FLOOR FWD PORT	MCC24	N/A	V	DOL	0,25	690	0,71	0,64	0,46	0,80	0,3	0,4	0,4	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	0	0	0		
21	576-GE-272K	THERMAL OIL HEATED VENTING FAN FOR PIPE STORAGE AREA AFT PORT	MCC24	N/A	V	DOL	0,25	690	0,71	0,64	0,46	0,80	0,3	0,4	0,4	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	0	0	0		
22	576-GE-272L	THERMAL OIL HEATED VENTING FAN FOR PIPE STORAGE AREA AFT PORT	MCC24	N/A	V	DOL	0,25	690	0,71	0,64	0,46	0,80	0,3	0,4	0,4	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	100	0	0,3	0	0	0		
23	721-PA-003-A	SEA WATER SERVICE PUMP	MCC24	A/P/26P	M	SFT	450,0	690	0,96	0,87	450,0	0,80	374,3	390,0	430,3	90	215	187,2	50	215	187,2	50	215	187,2	50	215	187,2	50	215	187,2	50	215	187,2	50	215	187,2	0	0	0		
24	961-F-001-A	THERMAL OIL LOADL CONTROL PANEL	MCC24	A/P/M1-47B	M	FDR	5,7KVA	690	0,85	0,85	47,7	0,80	45,9	46,2	54,0	25	14	11,5	25	14	11,5	25	14	11,5	25	14	11,5	25	14	11,5	25	14	11,5	25	14	11,5	0	0	0		
25	576-GE-261C	VENTILATION FAN (AXIAL) FOR M312A	MCC24	M312A	V	DOL	0,4	690	0,70	0,62	0,58	0,80	0,5	0,5	0,6	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	0	0	0		
26	576-GE-261D	VENTILATION FAN (AXIAL) FOR M312B	MCC24	M312B	V	DOL	0,4	690	0,70	0,62	0,58	0,80	0,5	0,5	0,6	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	0	0	0		
30	876-ER-V03	VFD FOR AFT PS ENGINE ROOM VENTILATION FAN	MCC24	A/P/M146	V	FDR	230,0	690	0,95	0,80	241,2	0,80	138,9	145,3	173,7	100	174	139,9	100	174	139,9	100	174	139,9	100	174	139,9	100	174	139,9	100	174	139,9	100	174	139,9	100	276	230		
31	576-GE-259F	VENTILATION FAN (AXIAL) FOR HEATER SHELTER	MCC24	N/A	V	DOL	0,4	690	0,70	0,62	0,58	0,80	0,5	0,5	0,6	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	100	1	0,5	0	0	0		
32	576-GE-139C	VENTILATION FAN (AXIAL) FOR COLUMN & PONTOON (AFT/PORT)	MCC24	M331R	V	2SPEED	17,6	690	0,90	0,81	20,2	0,80	15,6	16,2	19,3	100	19	15,6	100	19	15,6	100	19	15,6	100	19	15,6	100	19	15,6	100	19	15,6	100	19	15,6	0	0	0	5,9KW	
34	576-GE-130C	VENTILATION FAN (AXIAL) FOR M106, M302	MCC24	M327	V	DOL	3,3	690	0,83	0,87	3,85	0,80	3,2	3,1	3,7	100	4	3,2	100	4	3,2	100	4	3,2	100	4	3,2	100	4	3,2	100	4	3,2	100	4	3,2	0	0	0		
35	576-GE-130D	VENTILATION FAN (AXIAL) FOR M106, M302	MCC24	M327	V	DOL	3,3	690	0,83	0,87	3,85	0,80	3,2	3,1	3,7	100	4	3,2	100	4	3,2	100	4	3,2	100	4	3,2	100	4	3,2	100	4	3,2	100	4	3,2	0	0	0		
36	576-GE-141D	VENTILATION FAN (AXIAL) FOR M1398	MCC24	A/P/UPPER	V	2SPEED	7,3	690	0,97	0,88	8,2	0,80	6,9	6,6	7,8	100	8	6,9	100	8	6,9	100	8	6,9	100	8	6,9	100	8	6,9	100	8	6,9	100	8	6,9	0	0	0	2,9KW	
37	576-EN-H03	LOP FOR ELECTRIC HEATER 576-FE-440 A	MCC24	BIP	V	FDR	39,0	690	0,90	0,88	32,6	0,80	34,7	33,0	39,4	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0		
		Total consumption of MCC 34					*8.80*				*910*		*89.9*	*88.6*	*82.0*		*55.8*	*47.1*		*5.58*	*47.1*		*55.8*	*47.1*		*55.8*	*47.1*		*5.58*	*47.1*		*55.8*	*47.1*		*55.8*	*47.1*		*27.9*	*2.24*		

MAIN NE, 690V AC MCC 4 1, 873-EN-M13																																								
1	901-E-00 1-D	LIFE BOAT DAVIT NO.4 CONTROL PANEL	MCC41	N/A	M	FDR	34,5	690	0,90	0,85	37,7	0,80	30,7	30,2	36,1	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0		
2	901-EC-00 1-G	MAIN ENGINE G TURNING GEAR UNIT	MCC41	A/S/M152 A	M	FDR	2,5	690	0,83	0,67	5,0	0,80	3,2	4,0	4,7	25	1	0,8	25	1	0,8	25	1	0,8	25	1	0,8	25	1	0,8	25	1	0,8	25	1	0,8	0	0	0		
3	901-EC-00 1-H	MAIN ENGINE H TURNING GEAR UNIT	MCC41	A/S/M152 A	M	FDR	2,5	690	0,83	0,67	5,0	0,80	3,2	4,0	4,7	25	1	0,8	25	1	0,8	25	1	0,8	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	0	0	0		
4	901-EC-002-G	MAIN ENGINE G PRE-LUBRICATION OIL PUMP	MCC41	A/S/M152 A	M	FDR	22,0	690	0,94	0,82	24,0	1,00	0	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	0	0	0		
5	901-EC-002-H	MAIN ENGINE H PRE-LUBRICATION OIL PUMP	MCC41	A/S/M152 A	M	FDR	22,0	690	0,94	0,82	24,0	1,00	0	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	25	0	0,0	0	0	0		
6	635-EC-00 1-A	THRUSTER A LUBRICATION UNIT	MCC41	F/P/4P	T	FDR	5,2	690	0,88	0,91	5,4	0,80	4,7	0,7	0,9	100	1	0,7	100	1	0,7	100	1	0,7	100	1	0,7	100	1	0,7	100	1	0,7	100	1	0,7	0	0	0		
7	635-EC-002-AA	THRUSTER A HYDRAULIC POWER PACK 1	MCC41	F/P/4P	T	FDR	90,0	690	0,88	0,93	92,1	0,80	81,8	73,7	88,1	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	0	0	0		
8	635-EC-002-AB	THRUSTER A HYDRAULIC POWER PACK 2	MCC41	F/P/4P	T	FDR	90,0	690	0,88	0,93	92,1	0,80	81,8	73,7	88,1	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	100	88	81,8	0	0	0		
9	703-PG-03-G	F.O. CIRCULATION PUMP G	MCC41	A/S/M152B	M	DOL	8,8	690	0,90	0,91	8,8	0,80	7,7	7,1	8,4	90	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	0	0	0		
10	721-PA-002-D	AFT MAIN SEA COOLING WATER PUMP	MCC41	A/S/265	M	SFT	150,0	690	0,92	0,90	154,3	0,80	132,7	123,4	147,4	90	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	100	147	132,7	0	0	0	150
11	721-PA-005-A	THRUSTER SEA WATER COOLING PUMP	MCC41	F/P/4P	T	DOL	12,7	690	0,88	0,89	13,5	0,80	11,5	10,8	12,9	90	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	0	0	0		
12	722-PA-002-D	FRESH WATER COOLING PUMP	MCC41	A/S/M152 A	M	DOL	63,0	690	0,92	0,89	64,2	0,80	54,7	51,4	61,4	25	15	13,7	25	15	13,7	25	15	13,7	25	15	13,7	25	15	13,7	25	15	13,7	25	15	13,7	0	0	0		
13	722-IF-001-D	L.T.PREHEATING UNIT	MCC41	A/S/M152 A	M	FDR	3,0	690	0,70	0,80	4,5	1,00	4,3	4,5	5,4	25	1	1,1	25	1	1,1	25	1	1,1	25	1	1,1	25	1	1,1	25	1	1,1	25	1	1,1	0	0	0		
14	722-IF-002-D	H.T.PREHEATING UNIT	MCC41	A/S/M152 A	M	FDR	108,8	690	0,90	0,90	109,4	1,00	114,5	106,4	127,2	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	0	0	0		
15	761-EC-00 1-B	FRESH WATER GENERATOR (761-XX-00 1-B) MOTOR STARTER PANEL	MCC41	A/P/M135 A	M	FDR	101,0	690	0,94	0,89	103,6	0,80	85,6	80,5	96,2	50	48	42,8	50	48	42,8	50	48	42,8	50	48	42,8	50	48	42,8	50	48	42,8	50	48	42,8	0	0	0		
16	901-PA-00 1-F	BALLAST PUMP, SUBMERSIBLE F	MCC41	A/P/26P	M	DOL	84,0	690	0,94	0,87	85,9	0,80	71,5	68,8	82,2	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0		
17	803-PG-101-C	SLUDGE PUMP	MCC41	A/S/M152 A	M	DOL	2,2	690	0,84	0,74	3,0	0,80	2,1	2,4	2,8	5	0	0,1	5	0	0,1	5	0	0,1	5	0	0,1	5	0	0,1	5	0	0,1	5	0	0,1	0	0	0		
18	804-PA-00 4-C	SUMP TRANSFER PUMP	MCC41	A/S/M194	M	DOL	3,5	690	0,82	0,91	3,9	0,80	4,2	3,9	4,7	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0		
19	804-PA-00 4-D	SUMP TRANSFER PUMP	MCC41	A/S/M194	M	DOL	3,5	690	0,82	0,91	3,9	0,80	4,2	3,9	4,7	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0		
20	813-PA-00 1-B	MAIN FIRE PUMP	MCC41	A/P/26P	M	SFT	400,0	690	0,96	0,87	400,0	0,80	332,7	320,0	382,4	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	100	400	400		
21	861-PA-00 1-G	1 KV GENERATOR -G DE L/O PUMP	MCC41	A/S/M152 A	M	DOL	1,75	690	0,84	0,80	2,2	0,80	1,7	1,7	2,1	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	0	0	0		
22	861-PA-00 2-G	1 KV GENERATOR -G NDE L/O PUMP	MCC41	A/S/M152 A	M	DOL	1,75	690	0,84	0,80	2,2	0,80	1,7	1,7	2,1	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	10	0	0,2	0	0	0		
23	865-ET-T04-AA	THRUSTER XFMR A HEAT EXCHAGER FAN	MCC41	F/P/4P	T	FDR	4,0	690	0,89	0,84	4,5	0,80	3,6	3,6	4,3	50	2	1,8	50	2	1,8	50	2	1,8	50	2	1,8	50	2	1,8	50	2	1,8	50	2	1,8	0	0	0		
24	865-ET-T10-B	TRANSFORMER FOR HEAT TRACING SYSTEM	MCC41	A/S/M193	M	FDR	200,0KVA	690	1,00	1,00	167,3	0,80	160,0	133,9	160,0	50	80	80,0	50	80	80,0	50	80	80,0	50	80	80,0	50	80	80,0	50	80	80,0	50	80	80,0	0	0	0		
25	866-ER-AUC 4	1 KV. SWBD H.S4 UPS FOR CONTROL POWER	MCC41	A/S/M149	M	FDR	13,8KVA	690	0,98	0,85	11,6	0,80	9,6	9,4	11,3	100	11	9,6	100	11	9,6	100	11	9,6	100	11	9,6	100	11	9,6	100	11	9,6	100	11	9,6	0	0	0	100	16	13
26	867-EH-00 1-AA	THRUSTER VFD A WATER COOLING UNIT	MCC41	F/P/4P	T	FDR	9,2	690	0,90	0,89	9,6	0,80	8,2	7,7	9,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	0	0	0		
27	867-EH-00 1-AB	THRUSTER VFD A PRECHARGING AND MISC. LV LOADS	MCC41	F/P/4P	T	FDR	10,2	690	0,98	0,85	10,2	0,50	5,2	5,1	6,1	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	0	0	0		
28	875-EN-P14	PANEL BOARD FOR W ATER TIGHT DOOR	MCC41	A/S/M159	M	FDR	5,3	690	0,77	0,68	8,5	0,60	4,1	5,1	6,1	100	6	4,1	100	6	4,1	100	6	4,1	100	6	4,1	100	6	4,1	100	6	4,1	100	6	4,1	0	0	0		
		Total consumption of MCC 41					*1 457*				*1 450*		*122.4,9*	*1 137,6*	*1 399,4*		*47 5,7*	*437,4*		*475,7*	*437,4*		*475,7*	*437,4*		*475,7*	*437,4*		*465,7*	*449,4*		*480,7*	*449,4*		*514,3*	*473,0*			*66 3,7*	*573,8*		

MAIN NE, 690V AC MCC 4 2, 873-EN-M14																																								
1	324-EM117	BASE OIL SERVICE PUMP	MCC42	A/S/265	D	DOL	25,0	690	0,99	0,99	21,4	0,90	22,8	19,3	23,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0		
2	324-EM119	TRANSFER PUMP NO.1 BASE OIL DUTY	MCC42	A/S/265	D	DOL	63,0	690	0,97	0,95	57,0	0,90	58,3	51,3	61,3	0	0	0,0	10	6	5,8	10	6	5,8	10	6	5,8	10	6	5,8	10	6	5,8	10	6	5,8	0	0	0		
3	876--ER-01-A	POWER JBS FOR WELL TEST EQUIPMENT TRANSFER PUMP	MCC42	N/A	T	FDR	167,9	690	0,89	0,85	167,9	0,80	134,8	132,7	158,6	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0		
4	703-PG-03-H	F.O. CIRCULATION PUMP H	MCC42	A/S/M152B	M	DOL	8,8	690	0,90	0,91	8,8	0,80	7,7	7,1	8,4	90	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	50	4	3,8	0	0	0		
5	721-PA-002-C	AFT MAIN SEA COOLING WATER PUMP	MCC42	A/S/265	M	SFT	150,0	690	0,92	0,90	154,2	0,80	132,7	123,4	147,4	90	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	50	74	66,3	100	147	132,7	0	0	0
6	721-PA-005-G	THRUSTER SEA WATER COOLING PUMP	MCC42	A/S/235	T	DOL	12,7	690	0,88	0,89	13,5	0,80	11,5	10,8	12,9	90	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	50	6	5,8	0	0	0		
7	722-PA-002-C	FRESH WATER COOLING PUMP	MCC42	A/S/M152 A	M	DOL	63,0	690	0,92	0,89	64,2	0,80	54,7	51,4	61,4	25	15	13,7	25	15	13,7	25	15	13,7	25	15	13,7	25	15	13,7	25	15	13,7	25	15	13,7	0	0	0		
8	733-VK-00 1-B	SERVICE AIR DRYER	MCC42	A/P/M135B	M	FDR	25,0	690	0,99	0,99	21,3	1,00	25,3	21,3	25,5	90	13	12,6	50	13	12,6	50	13	12,6	50	13	12,6	50	13	12,6	50	13	12,6	50	26	25,3	0	0	0		
9	831-H-001-C/B	HPP MOTOR FOR REMOTE CONTROL VALVE	MCC42	N/A	M	FDR	18,0	690	0,95	0,80	19,8	0,80	15,2	15,9	18,9	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	0	0	0	100	23	18
10	831-H-001-D/A	HPP MOTOR FOR REMOTE CONTROL VALVE	MCC42	N/A	M	FDR	18,0	690	0,95	0,80	19,8	0,80	15,2	15,9	18,9	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	5	1	0,8	0	0	0		
11	865-ET-T04-GA	THRUSTER XFMR G HEAT EXCHAGER FAN	MCC42	A/S/235	T	FDR	3,3	690	0,89	0,84	3,9	0,80	3,1	3,1	3,7	50	2	1,6	50	2	1,6	50	2	1,6	50	2	1,6	50	2	1,6	50	2	1,6	50	2	1,6	0	0	0		
12	867-EH-00 1-GA	THRUSTER VFD G W ATER COOLING UNIT	MCC42	A/S/235	T	FDR	9,2	690	0,90	0,89	9,6	0,80	8,2	7,7	9,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	100	9	8,2	0	0	0		
13	867-EH-00 1-GB	THRUSTER VFD G PRECHARGING AND MIS C L.V.LOAD S	MCC42	A/S/235	T	FDR	10,2	690	0,98	0,85	10,2	0,50	5,2	5,1	6,1	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	100	6	5,2	0	0	0		
		Total consumption of MCC 42					*1 449*				*1 507*		*1 267*	*1 210*	*1 446*		*407*	*347*		*432*	*383*		*413*	*373*		*439*	*387*		*429*	*387*		*510*	*461*						*123*	*108*		

DRILLING, 690VAC MCC 4 3, 873-EN-M16																																								
1	311-ER00 1B	UPS1 40KVA ALTERNATE SUPPLY	MCC43	M22 1A	D	FDR	40,0KVA	690	0,95	0,80	33,5	0,80	26,9	28,2	33,7	80	27	21,6	80	27	21,6	80	27	21,6	80	27	21,6	80	27	21,6	80	27	21,6	80	27	21,6	0	0	0	100	40	32
2	311-ER002A	UPS2 40KVA MAIN SUPPLY	MCC43	M22 1B	D	FDR	40,0KVA	690	0,95	0,80	33,5	0,80	26,9	28,2	33,7	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0		
3	311-B469A	HVAC DC AND LER	MCC43	M601	D	FDR	50,0	690	0,95	0,85	51,8	0,60	31,6	31,1	37,2	0	0	0,0	0	0	0,0	0	0	0,0	100	37	31,6	100	37	31,6	100	37	31,6	100	37	31,6	0	0	0		
4	312-EM35 2B	AHO D2 DRAWWORKS MW BLOW ERMOTOR#B	MCC43	N/A	D	DOL	63,0	690	0,93	0,87	65,2	0,80	54,2	52,1	62,3	0	0	0,0	30	19	16,3	30	19	16,3	30	19	16,3	30	19	16,3	30	19	16,3	30	31	27,1	0	0	0		
5	312-EM35 3B	AHO D2 DRAWWORKS MW HPUMOTOR#B	MCC43	N/A	D	DOL	4,0	690	0,89	0,85	4,4	0,70	3,1	3,1	3,7	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0		
6	312-EM35 4B	AHO D2 DRAWWORKS MW LUBEOIL MOTOR#B	MCC43	N/A	D	DOL	5,5	690	0,90	0,87	5,9	0,70	4,3	4,1	4,9	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0		
7	313-EM10 4	TOP DRIVE BLOWER MOTOR B	MCC43	N/A	D	DOL	2,8	690	0,95	0,85	2,9	0,80	2,4	2,3	2,8	0	0	0,0	70	2	1,7	70	2	1,7	70	2	1,7	70	2	1,7	70	2	1,7	70	0	0,0	0	0	0		
8	314-EM860	N.Line Riser Tensioner System, Fluid Fill Unit	MCC43	M22 6	D	DOL	42,0	690	0,95	0,85	43,0	0,80	35,4	34,8	41,6	0	0	0,0	50	21	17,7	50	21	17,7	50	21	17,7	50	21	17,7	50	21	17,7	50	0	0,0	0	0	0		

Offfal l G F
Project NO: 3025

ELECTRICAL LOAD ANALYSIS

S/N	Equipment number	DESCRIPTION	MCC	ROOM NO	SER-VICE	STARTER TYPE	CONNECTED LOAD					L.F.	TRANSIT + DP 75%			MOORING + THR ASST 50%			DRILLING + DP 90%			DRILLING + DP 75%			BK REAM'G + DP 75%			WELL CIR/CN AFTER DP MAX SINGLE FAILURE			DEAD SHIP POWER			EMERGENCY MODE			REMARK	Reference Low Speed Rating
							kW	VOLT	EFF	PF	AMP		kW	AMP	kVA	DF	kVA	kW	DF	kVA	kW	DF	kVA	kW	DF	kVA	kW	DF	kVA	kW	DF	kVA	kW	DF	kVA	kW		
9	315-EN010	STANDBY APVS AND COMPRESSORS, MOTOR CONPRESSOR 1	MCC43	M226	D	FDR	50.0	690	0.95	0.85	51.8	0.90	47.4	46.8	55.7	0	0	0.0	10	6	4.7	10	6	4.7	10	6	4.7	10	6	4.7	0	0	0.0	0	0	0	0	0	
10	315-EN011	STANDBY APVS AND COMPRESSORS, MOTOR CONPRESSOR 3	MCC43	M226	D	FDR	50.0	690	0.95	0.85	51.8	0.90	47.4	46.8	55.7	0	0	0.0	10	6	4.7	10	6	4.7	10	6	4.7	10	6	4.7	0	0	0.0	0	0	0	0	0	
11	317-EI012	MAN RIDER WINCH PMW-150 #2	MCC43	M8016	D	FDR	6.0	690	0.95	0.97	5.4	0.60	3.8	3.3	3.9	0	0	0.0	5	0	0.2	5	0	0.2	5	0	0.2	5	0	0.2	5	0	0.2	0	0	0	0	0	
12	317-EI032	MAN RIDER WINCH PMW-150 #4	MCC43	M2010	D	FDR	6.0	690	0.95	0.97	5.4	0.60	3.8	3.3	3.9	0	0	0.0	5	0	0.2	5	0	0.2	5	0	0.2	5	0	0.2	5	0	0.2	0	0	0	0	0	
13	321-EM010	OFFSHORE LOADING STATION #2	MCC43	N/A	D	DOL	11.0	690	0.95	0.85	11.4	0.80	9.3	9.1	10.9	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0	0	0	
14	324-EM100	MUD TRANSFER PUMP NO.4 - OBM DUTY	MCC43	M151	D	DOL	67.0	690	0.95	0.86	68.5	0.90	63.3	61.6	73.7	0	0	0.0	20	15	12.7	20	15	12.7	20	15	12.7	20	15	12.7	0	0	0.0	0	0	0	0	0	
15	324-EM108	MUD MIX PUMP NO.4 - OBM DUTY	MCC43	M151	D	DOL	67.0	690	0.95	0.86	68.5	0.90	63.3	61.6	73.7	0	0	0.0	20	15	12.7	20	15	12.7	20	15	12.7	20	15	12.7	20	15	12.7	0	0	0	0	0	
16	324-EM130	AGITATOR OBM SLUG TANK	MCC43	N/A	D	DOL	0.8	690	0.89	0.82	0.9	0.80	0.7	0.7	0.8	0	0	0.0	50	0	0.3	50	0	0.3	50	0	0.3	50	0	0.3	25	0	0.2	0	0	0	0	0	
17	324-EM132	AGITATOR OBM ACTIVE MIX TANK	MCC43	N/A	D	DOL	13.5	690	0.93	0.82	14.9	0.80	11.7	11.9	14.2	0	0	0.0	50	7	5.8	50	7	5.8	50	7	5.8	50	7	5.8	50	7	5.8	0	0	0	0	0	
18	324-EM133	AGITATOR OBM ACTIVE SUCTION TANK	MCC43	N/A	D	DOL	13.5	690	0.93	0.82	14.9	0.80	11.7	11.9	14.2	0	0	0.0	50	7	5.8	50	7	5.8	50	7	5.8	50	7	5.8	50	7	5.8	0	0	0	0	0	
19	324-EM134	AGITATOR OBM RESERVE TANK NO.1	MCC43	N/A	D	DOL	13.5	690	0.93	0.82	14.9	0.80	11.7	11.9	14.2	0	0	0.0	50	7	5.8	50	7	5.8	50	7	5.8	50	7	5.8	50	7	5.8	0	0	0	0	0	
20	324-EM135	AGITATOR OBM RESERVE TANK NO.2	MCC43	N/A	D	DOL	13.5	690	0.93	0.82	14.9	0.80	11.7	11.9	14.2	0	0	0.0	50	7	5.8	50	7	5.8	50	7	5.8	50	7	5.8	50	7	5.8	0	0	0	0	0	
21	324-EM136	AGITATOR OBM RESERVE TANK NO.3	MCC43	N/A	D	DOL	15.0	690	0.93	0.82	16.5	0.80	13.0	13.2	15.8	0	0	0.0	50	8	6.5	50	8	6.5	50	8	6.5	50	8	6.5	50	8	6.5	0	0	0	0	0	
22	324-EM137	AGITATOR OBM RESERVE TANK NO.4	MCC43	N/A	D	DOL	13.2	690	0.93	0.82	14.5	0.80	11.4	11.6	13.9	0	0	0.0	50	7	5.7	50	7	5.7	50	7	5.7	50	7	5.7	50	7	5.7	0	0	0	0	0	
23	324-EM138	AGITATOR OBM RESERVE TANK NO.5	MCC43	N/A	D	DOL	15.0	690	0.93	0.82	16.5	0.80	13.0	13.2	15.8	0	0	0.0	50	8	6.5	50	8	6.5	50	8	6.5	50	8	6.5	50	8	6.5	0	0	0	0	0	
24	324-EM142	WASHING MACHINE PUMP OBM PIT TANK	MCC43	M151	D	DOL	9.2	690	0.83	0.82	11.3	0.70	7.7	7.9	9.5	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0	0	0	
25	325-EM012C	HP MUD PUMP NO. 3, FAN A	MCC43	A/S/M191	D	DOL	13.0	690	0.92	0.83	14.2	0.80	11.3	11.4	13.6	0	0	0.0	25	3	2.8	25	3	2.8	25	3	2.8	25	3	2.8	50	7	5.7	0	0	0	0	0	
26	325-EM013C	HP MUD PUMP NO. 3, FAN B	MCC43	A/S/M191	D	DOL	13.0	690	0.92	0.83	14.2	0.80	11.3	11.4	13.6	0	0	0.0	25	3	2.8	25	3	2.8	25	3	2.8	25	3	2.8	50	7	5.7	0	0	0	0	0	
27	325-EM014C	HP MUD PUMP NO. 3, LINER SPRAY PUMP MOTOR	MCC43	A/S/M191	D	DOL	2.3	690	0.83	0.82	2.8	0.60	1.6	1.7	2.0	0	0	0.0	100	2	1.6	100	2	1.6	100	2	1.6	100	2	1.6	50	1	0.8	0	0	0	0	0	
28	325-EM019C	HP MUD PUMP NO. 3, LUBE OIL MOTOR	MCC43	A/S/M191	D	DOL	1.1	690	0.78	0.80	1.5	0.60	0.8	0.9	1.1	0	0	0.0	70	1	0.8	100	1	0.8	100	1	0.8	100	1	0.8	50	1	0.4	0	0	0	0	0	
29	325-EM113	MUD CHARGE PUMP NO. 3 DUTY	MCC43	M151	D	DOL	52.0	690	0.95	0.83	55.4	0.80	43.9	44.3	52.9	0	0	0.0	70	37	30.7	70	37	30.7	70	37	30.7	70	37	30.7	70	37	30.7	35	19	15.4	0	0	0	
30	325-EM117	MUD CHARGE PUMP NO. 7 DUTY	MCC43	M151	D	DOL	52.0	690	0.95	0.83	55.4	0.80	43.9	44.3	52.9	0	0	0.0	70	37	30.7	70	37	30.7	70	37	30.7	70	37	30.7	70	37	30.7	35	19	15.4	0	0	0	
31	326-EM109A	VACUUM DEGASSER/KNO.2 (MOTOR A)	MCC43	M318	D	DOL	18.5	690	0.93	0.82	20.4	0.80	16.0	16.3	19.5	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	50	10	8.0	0	0	0	
32	326-EM109B	VACUUM DEGASSER NO.2 (MOTOR B)	MCC43	M318	D	DOL	4.0	690	0.85	0.80	5.0	0.80	3.8	4.0	4.7	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	50	2	1.9	0	0	0	0	0	
33	326-EM302AAB	CENTRIFUGE NO.2 - FUTURE OPTION	MCC43	M318	D	FDR	30.0	690	0.93	0.82	33.1	0.80	25.9	26.4	31.8	0	0	0.0	50	16	13.0	50	16	13.0	50	16	13.0	50	16	13.0	0	0	0.0	0	0	0	0	0	
34	326-EM112	CENTRIFUGE FEED PUMP NO.2 - FUTURE OPTION	MCC43	M151	D	DOL	7.5	690	0.93	0.82	8.3	0.80	6.5	6.6	7.9	0	0	0.0	50	4	3.2	50	4	3.2	50	4	3.2	50	4	3.2	0	0	0.0	0	0	0	0	0	
35	326-EM114	CUTTING SCREW CONVEYOR NO.2	MCC43	M319	D	DOL	22.5	690	0.93	0.82	24.8	0.80	19.4	19.8	23.7	0	0	0.0	50	12	9.7	50	12	9.7	50	12	9.7	50	12	9.7	50	12	9.7	0	0	0	0	0	
36	326-EM116	CUTTING SCREW CONVEYOR NO.4	MCC43	N/A	D	DOL	7.5	690	0.93	0.82	8.3	0.80	6.5	6.6	7.9	0	0	0.0	50	4	3.2	50	4	3.2	50	4	3.2	50	4	3.2	50	4	3.2	0	0	0	0	0	
37	332-EM109B	BOP SYSTEM, HPU WITH MIXING SYSTEM, PUMP #2	MCC43	M166	D	DOL	110.0	690	0.94	0.85	115.2	0.80	93.6	92.2	110.1	0	0	0.0	50	55	46.8	50	55	46.8	50	55	46.8	50	55	46.8	50	55	46.8	0	0	0	0	0	
38	332-EN111	BOP SYSTEM, FLUID RECOVERY SYSTEM, MOTOR 2	MCC43	M166	D	FDR	80.0	690	0.94	0.85	83.8	0.80	68.1	67.0	80.1	0	0	0.0	33	26	22.5	33	26	22.5	33	26	22.5	33	26	22.5	33	26	22.5	0	0	0	0	0	
39	332-UL109B	BOP SYSTEM, UPS B	MCC43	M166	D	FDR	22.0KVA	690	0.96	0.86	21.8	0.80	15.4	15.0	18.0	0	0	0.0	50	9	7.7	50	9	7.7	50	9	7.7	50	9	7.7	50	9	7.7	100	18	15.4	0	0	0	
41	337-EM012	TRIP TANK PUMP NO.2	MCC43	N/A	D	DOL	52.0	690	0.94	0.86	53.6	0.90	46.6	46.2	57.8	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0	0	0	
42	361-UI101	KNUCLE BOOM CRANE NO. 1	MCC43	N/A	D	FDR	30.0	690	0.95	0.85	31.1	0.70	22.1	21.8	26.0	0	0	0.0	0	0	0.0	50	13	11.1	50	13	11.1	50	13	11.1	0	0	0.0	0	0	0	0	0	
43	371-EM-003-B	CEMENT PUMP B BLOWER	MCC43	M315	D	DOL	13.0	690	0.93	0.90	13.0	0.80	11.2	10.4	12.4	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0	0	0	
44	865-ET-T013-D	DRILLING XFMR D HEAT EXCHANGER FAN	MCC43	A/S/M221B	D	FDR	4.0	690	0.89	0.84	4.5	0.80	3.6	3.6	4.3	0	0	0.0	100	4	3.6	100	4	3.6	100	4	3.6	100	4	3.6	100	4	3.6	0	0	0	0	0	
45	868-ET-004-B	BRAKING RESISTOR COOLING PUMP B	MCC43	M226	D	DOL	110.0	690	0.95	0.84	115.0	0.80	92.3	92.0	109.9	0	0	0.0	50	55	46.2	50	55	46.2	50	55	46.2	50	55	46.2	50	55	46.2	0	0	0	0	0	
46	867-EN-504-A	DSWR 2B COOLING PUMP MOTOR A	MCC43	A/S/M221B	D	DOL	7.5	690	0.86	0.86	8.5	0.80	7.0	6.8	8.1	0	0	0.0	0	0	0.0	50	4	3.5	50	4	3.5	50	4	3.5	50	4	3.5	0	0	0	0	0	
47	867-EN-503-B	DSWR 2A COOLING PUMP MOTOR B	MCC43	A/P/M221A	D	DOL	7.5	690	0.86	0.86	8.5	0.80	7.0	6.8	8.1	0	0	0.0	0	0	0.0	50	4	3.5	50	4	3.5	50	4	3.5	50	4	3.5	0	0	0	0	0	
		Total consumption of MCC 43					*1 271*				*1 321*		*1 076*	*1 068*	*1 276*		*27*	*22*		*434*	*355*		*488*	*410*		*488*	*410*		*501*	*421*		*394*	*329*		-	-	*40*	*32*	

MARINE, 690 VAC MCC 44, 873-EN-M17																																					
1	570-GA-140A	JUNCTION BOX (570-JB-008) FOR AHU (370-GA-140 A) 690V	MCC44	M222	V	2SPEED	46.0	690	0.90	0.88	48.6	0.80	40.9	39.9	46.5	100	46	40.9	100	46	40.9	100	46	40.9	100	46	40.9	100	46	40.9	100	46	40.9	0	0	0	0	0	7KW
3	570-GE-140B	VENTILATION FAN (AXIAL) FOR COLUMN & PONTOON (AFT STBD)	MCC44	M322R	V	2SPEED	17.6	690	0.90	0.81	20.2	0.80	15.6	16.2	19.3	100	19	15.6	100	19	15.6	100	19	15.6	100	19	15.6	100	19	15.6	100	19	15.6	0	0	0	0	0	5.3KW
4	570-GE-242A	VENTILATION FAN (AXIAL) FOR M320, M321, M322, M323, M405 , M504	MCC44	M505	V	2SPEED	2.8	690	0.78	0.88	3.4	0.80	2.9	2.7	3.3	100	3	2.9	100	3	2.9	100	3	2.9	100	3	2.9	100	3	2.9	100	3	2.9	0	0	0	0	0	0.9KW
5	570-GE-242B	VENTILATION FAN (AXIAL) FOR M320, M321, M322, M323, M405	MCC44	M505	V	2SPEED	2.2	690	0.77	0.85	2.92	0.80	2.3	2.3	2.7	100	3	2.3	100	3	2.3	100	3	2.3	100	3	2.3	100	3	2.3	100	3	2.3	0	0	0	0	0	0.9KW
8	575 -GD-247A	VEN TILATION FAN (CENTRIFUGAL) FOR M315	MCC44	M317	V	2SPEED	39.5	690	0.92	0.84	41.5	0.80	33.3	33.2	39.7	100	40	33.3	100	40	33.3	100	40	33.3	100	40	33.3	100	40	33.3	100	40	33.3	0	0	0	0	0	10.5KW
9	575 -GD-254C	EXH AUST FAN (CENTRIFUGAL) FOR MUD PITS	MCC44	M318	V	DOL	17.0	690	0.91	0.93	16.8	0.80	14.9	13.4	16.1	100	16	14.9	100	16	14.9	100	16	14.9	100	16	14.9	100	16	14.9	100	16	14.9	0	0	0	0	0	
10	575 -GD-234D	EXH AUST FAN (CENTRIFUGAL) FOR MUD PITS	MCC44	M318	V	DOL	17.0	690	0.91	0.93	16.8	0.80	14.9	13.4	16.1	100	16	14.9	100	16	14.9	100	16	14.9	100	16	14.9	100	16	14.9	100	16	14.9	0	0	0	0	0	
11	575 -GE-247B	VEN TILATION FAN (AXIAL) FOR M315	MCC44	M315	V	2SPEED	8.7	690	0.88	0.86	9.6	0.80	7.9	7.7	9.2	50	5	3.9	50	5	3.9	50	5	3.9	50	5	3.9	50	5	3.9	50	5	3.9	0	0	0	0	0	2.9kW
14	575 -GE-254A	VEN TILATION FAN (AXIAL) FOR MUD PITS	MCC44	N/A	V	DOL	6.6	690	0.85	0.87	7.5	0.80	6.2	6.0	7.1	100	7	6.2	100	7	6.2	100	7	6.2	100	7	6.2	100	7	6.2	100	7	6.2	0	0	0	0	0	
15	575 -GE-254B	VEN TILATION FAN (AXIAL) FOR MUD PITS	MCC44	N/A	V	DOL	6.6	690	0.85	0.87	7.5	0.80	6.2	6.0	7.1	50	4	3.1	50	4	3.1	50	4	3.1	50	4	3.1	50	4	3.1	50	4	3.1	0	0	0	0	0	
16	576 -GE-231A	VEN TILATION FAN (AXIAL) FOR M218, M19.3, M19B, M149	MCC44	M316	V	2SPEED	3.6	690	0.78	0.87	4.0	0.80	3.7	3.6	4.3	50	2	1.9	50	2	1.9	50	2	1.9	50	2	1.9	50	2	1.9	50	2	1.9	100	4	4	0	0	0.9KW
17	578 -GE-247A	VEN TILATION FAN (AXIAL) FOR M164	MCC44	M505	V	2SPEED	9.9	690	0.87	0.88	10.8	0.80	9.1	8.7	10.4	100	10	9.1	100	10	9.1	100	10	9.1	100	10	9.1	100	10	9.1	100	10	9.1	0	0	0	0	0	2.4KW
18	578 -GE-247B	VEN TILATION FAN (AXIAL) FOR M164	MCC44	M525	V	2SPEED	7.5	690	0.87	0.88	8.2	0.80	6.9	6.5	7.8	100	8	6.9	100	8	6.9	100	8	6.9	100	8	6.9	100	8	6.9	100	8	6.9	0	0	0	0	0	2.1KW
19	578 -GE-272F	THERMAL OIL HEATED VENTING FAN FOR CELLAR DECK/AFT STBD/MOONPOOL	MCC44	OUTSIDE	V	DOL	0.25	690	0.71	0.64	0.46	0.80	0.3	0.4	0.4	100	0	0.3	100	0	0.3	100	0	0.3	100	0	0.3	100	0	0.3	100	0	0.3	0	0	0	0	0	
20	578 -GE-272I	THERMAL OIL HEATED VENTING FAN FOR DRILL FLOOR FWD STBD	MCC44	OUTSIDE	V	DOL	0.25	690	0.71	0.64	0.46	0.80	0.3	0.4	0.4	100	0	0.3	100	0	0.3	100	0	0.3	100	0	0.3	100	0	0.3	100	0	0.3	0	0	0	0	0	
21	578 -GE-272J	THERMAL OIL HEATED VENTING FAN FOR DRILL FLOOR/AFT STBD	MCC44	OUTSIDE	V	DOL	0.25	690	0.71	0.64	0.46	0.80	0.3	0.4	0.4	100	0	0.3	100	0	0.3	100	0	0.3	100	0	0.3	100	0	0.3	100	0	0.3	0	0	0	0	0	
22	578 -GE-272M	THERMAL OIL HEATED VENTING FAN FOR PIPE STORAGE AREA AFT STB.D	MCC44	OUTSIDE	V	DOL	0.25	690	0.71	0.64	0.46	0.80	0.3	0.4	0.4	100	0	0.3	100	0	0.3	100	0	0.3	100	0	0.3	100	0	0.3	100	0	0.3	0	0	0	0	0	
23	578 -GE-272N	THERMAL OIL HEATED VENTING FAN FOR PIPE STORAGE AREA AFT STB.D	MCC44	OUTSIDE	V	DOL	0.25	690	0.71	0.64	0.46	0.80	0.3	0.4	0.4	100	0	0.3	100	0	0.3	100	0	0.3	100	0	0.3	100	0	0.3	100	0	0.3	0	0	0	0	0	
24	721-PA-003-B	SEA WATER SERVICE PUMP	MCC44	A/S/285	M	SFT	450.0	690	0.96	0.87	450.0	0.80	375.2	393.0	430.2	50	215	187.6	50	215	187.6	50	215	187.6	50	215	187.6	50	215	187.6	50	215	187.6	0	0	0	0	0	
27	876-ER-V04	VFD FOR AFT SB ENGINE ROOM VENTILATION FAN	MCC44	A/S/M192B	V	FDR	2.20.0	690	0.90	0.80	24.2.2	0.80	1.38.9	1.45.3	173.7	100	174	138.9	100	174	138.9	100	174	138.9	100	174	138.9	100	174	138.9	100	174	138.9	0	0	0	0	100	27.6 2.20
28	876-ER-V16	VFD FOR MUD PUMP ROOM VENTILATION FAN	MCC44	A/S/M192	V	FDR	140.0	690	0.95	0.80	154.1	0.80	88.4	92.5	110.5	100	111	88.4	100	111	88.4	100	111	88.4	100	111	88.4	100	111	88.4	100	111	88.4	0	0	0	0	0	
29	570-GE-142C	VEN TILATION FAN (AXIAL) FOR COLUMN & PONTOON (AFT STBD)	MCC44	M322R	V	2SPEED	17.6	690	0.90	0.81	20.2	0.80	15.6	16.2	19.3	100	19	15.6	100	19	15.6	100	19	15.6	100	19	15.6	100	19	15.6	100	19	15.6	0	0	0	0	0	5.3KW
31	576 -GE-134C	VEN TILATION FAN (AXIAL) FOR M128, M308	MCC44	M303	V	DOL	3.3	690	0.82	0.87	3.85	0.80	3.2	3.1	3.7	100	4	3.2	100	4	3.2	100	4	3.2	100	4	3.2	100	4	3.2	100	4	3.2	0	0	0	0	0	
32	576 -GE-134D	VEN TILATION FAN (AXIAL) FOR M128, M308	MCC44	M303	V	DOL	3.3	690	0.82	0.87	3.85	0.80	3.2	3.1	3.7	100	4	3.2	100	4	3.2	100	4	3.2	100	4	3.2	100	4	3.2	100	4	3.2	0	0	0	0	0	
33	576-EN-H04	LCP FOR ELECTRIC HEATER 576-FE-444A	MCC44	M15	V	FDR	39.0	690	0.90	0.88	32.6	0.80	34.7	33.0	39.4	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0	0	0	
		Total consumption of MCC 44					*1 019*				*1 075*		*79 1*	*78 0*	*93 3*		*70 7*	*59 4*		*70 7*	*59 4*		*70 7*	*59 4*		*70 7*	*59 4*		*70 7*	*59 4*		*70 7*	*59 4*		-	-	*27 9*	*23 4*	

Odfjell GVA 7500 Semi-submersible Drilling Rig
Project NO: 3025

ELECTRICAL LOAD ANALYSIS

S/N	Equipment number	DESCRIPTION	CONNECTED LOAD					L.F.				TRANSIT + DP 75%		MOORING + THR ASST 50%		DRILLING + DP 50%		DRILLING + DP 75%		BK REAM'G + DP 75%		WELL CIRC'N AFTER DP MAX SINGLE		DEAD SHIP POWER		EMERGENCY MODE		REMARK
			kW	VOLT	EFF	PF	AMP		kW	AMP	kVA	DF	kW	DF	kW	DF	kW	DF	kW	DF	kW	DF	kW	DF	kW	DF	kW	
230VAC, LS11, 871-EL-S01																												
1	891-EL-L11	230V LIGHTING & SMALL POWER DB	27,6	230	0,95	0,90	81,1	1,00	29,1	81,1	32,3	80	23,3	80	23,3	80	23,3	80	23,3	80	23,3	80	23,3	0	0	80	23,3	
2	891-EL-L12	230V LIGHTING & SMALL POWER DB	22,8	230	0,95	0,90	67,0	1,00	24,0	67,0	26,7	80	19,2	80	19,2	80	19,2	80	19,2	80	19,2	80	19,2	0	0	80	19,2	
3	891-EL-L13	230V LIGHTING & SMALL POWER DB	35,9	230	0,95	0,90	105,4	1,00	37,8	105,4	42,0	80	30,2	80	30,2	80	30,2	80	30,2	80	30,2	80	30,2	0	0	80	30,2	
4	892-EL-L14	230V LIGHTING & SMALL POWER DB	42,7	230	0,95	0,90	125,4	1,00	44,9	125,4	49,9	80	36,0	80	36,0	80	36,0	80	36,0	80	36,0	80	36,0	0	0	80	36,0	
5	892-EL-L15	230V LIGHTING & SMALL POWER DB	23,0	230	0,95	0,90	67,5	1,00	24,2	67,5	26,9	60	14,5	60	14,5	60	14,5	60	14,5	60	14,5	60	14,5	0	0	60	14,5	
6	892-EL-L16	230V LIGHTING & SMALL POWER DB	26,9	230	0,95	0,90	79,0	1,00	28,3	79,0	31,5	60	17,0	60	17,0	60	17,0	60	17,0	60	17,0	60	17,0	0	0	60	17,0	
7	892-EL-L17	230V LIGHTING & SMALL POWER DB	27,8	230	0,95	0,90	81,6	1,00	29,3	81,6	32,5	60	17,6	60	17,6	60	17,6	60	17,6	60	17,6	60	17,6	0	0	60	17,6	
8	891-EL-L18	230V SMALL POWER DB	23,8	230	0,95	0,90	69,9	1,00	25,1	69,9	27,8	60	15,0	60	15,0	60	15,0	60	15,0	60	15,0	60	15,0	100	25	60	15,0	
9	891-EL-L19	230V SMALL POWER DB	28,0	230	0,95	0,90	82,2	1,00	29,5	82,2	32,7	60	17,7	60	17,7	60	17,7	60	17,7	60	17,7	60	17,7	0	0	60	17,7	
10	893-EL-D11	230V DECK LIGHTING & SMALL POWER DB	12,7	230	0,95	0,90	37,4	1,00	13,4	37,4	14,9	80	10,7	80	10,7	80	10,7	80	10,7	80	10,7	80	10,7	0	0	80	10,7	
11	875-EL-G11	230V SMALL POWER DB (GALLEY)	22,5	230	0,95	0,90	66,2	1,00	23,7	66,2	26,4	80	19,0	80	19,0	80	19,0	80	19,0	80	19,0	80	19,0	0	0	80	19,0	
12	875-EL-NB1	230V NAVIGATION EQUIP. SMALL POWER DB	4,4	230	0,95	0,90	13,0	1,00	4,7	13,0	5,2	80	3,7	80	3,7	80	3,7	80	3,7	80	3,7	80	3,7	0	0	80	3,7	
		Total consumption of LS 11					**875,5**		**313,9**	**875,5**	**348,8**		**223,9**		**223,9**		**223,9**		**223,9**		**223,9**		**223,9**		**25**		**224**	
440VAC, LS12, 871-EN-S05																												
1	875-EN-P01	440V PANEL BOARD - A/C UNIT	95,2	440	0,95	0,80	164,3	1,00	100,2	164,3	125,2	50	50,1	50	50,1	50	50,1	50	50,1	50	50,1	50	50,1	0	0	50	50,1	
3	875-EN-G11	440V PANEL BOARD - GALLEY EQUIPMENT	75,5	440	0,90	0,90	122,3	1,00	83,9	122,3	93,2	10	8,4	10	8,4	10	8,4	10	8,4	10	8,4	10	8,4	0	0	10	8,4	
5	875-EN-P06	440V PANEL BOARD - WELDING RECEPTACLE	91,5	440	0,90	0,90	148,2	1,00	101,7	148,2	113,0	10	10,2	10	10,2	10	10,2	10	10,2	10	10,2	10	10,2	0	0	10	10,2	
6	875-EN-P51	440V PANEL BOARD - LAUNDRY EQUIPMENT	123,0	440	0,90	0,90	199,3	1,00	136,7	199,3	151,9	10	13,7	10	13,7	10	13,7	10	13,7	10	13,7	10	13,7	0	0	10	13,7	
		Total consumption of LS 12					**634,1**		**422,4**	**634,1**	**483,2**		**82,3**		**82,3**		**82,3**		**82,3**		**82,3**		**82,3**		**0,0**		**82,3**	
230VAC, 875-EL-H11 (Power Panel)																												
1	875-EL-H12	230V ELECTRIC REHEATER/HEATER PANEL	47,9	230	0,95	0,90	140,6	1,00	50,4	140,6	56,0	50	25,2	50	25,2	50	25,2	50	25,2	50	25,2	50	25,2	0	0	50	25,2	
2	875-EL-H13	230V ELECTRIC REHEATER/HEATER PANEL	30,9	230	0,95	0,90	90,7	1,00	32,5	90,7	36,1	50	16,3	50	16,3	50	16,3	50	16,3	50	16,3	50	16,3	0	0	50	16,3	
3	875-EL-H14	230V ELECTRIC REHEATER/HEATER PANEL	37,0	230	0,95	0,90	108,7	1,00	39,0	108,7	43,3	50	19,5	50	19,5	50	19,5	50	19,5	50	19,5	50	19,5	0	0	50	19,5	
		Total consumption of LS 51					**340**		***122***	***340***	***135***		***61***		***61***		***61***		***61***		***61***		***61***		***0***		***61***	
230VAC, LS21, 871-EL-S02																												
1	891-EL-L21	230V LIGHTING & SMALL POWER DB	26,0	230	0,95	0,90	76,4	1,00	27,4	76,4	30,4	80	21,9	80	21,9	80	21,9	80	21,9	80	21,9	80	21,9	0	0	80	21,9	
2	891-EL-L22	230V LIGHTING & SMALL POWER DB	27,8	230	0,95	0,90	81,7	1,00	29,3	81,7	32,5	80	23,4	80	23,4	80	23,4	80	23,4	80	23,4	80	23,4	0	0	80	23,4	
3	892-EL-L23	230V LIGHTING & SMALL POWER DB	30,4	230	0,95	0,90	89,2	1,00	32,0	89,2	35,5	80	25,6	80	25,6	80	25,6	80	25,6	80	25,6	80	25,6	0	0	80	25,6	
4	892-EL-L24	230V LIGHTING & SMALL POWER DB	44,7	230	0,95	0,90	131,2	1,00	47,1	131,2	52,3	80	37,6	80	37,6	80	37,6	80	37,6	80	37,6	80	37,6	0	0	80	37,6	
5	892-EL-L25	230V LIGHTING & SMALL POWER DB	26,1	230	0,95	0,90	76,6	1,00	27,5	76,6	30,5	60	16,5	60	16,5	60	16,5	60	16,5	60	16,5	60	16,5	0	0	60	16,5	
6	892-EL-L26	230V LIGHTING & SMALL POWER DB	23,0	230	0,95	0,90	67,6	1,00	24,2	67,6	26,9	60	14,5	60	14,5	60	14,5	60	14,5	60	14,5	60	14,5	0	0	60	14,5	
7	891-EL-L27	230V SMALL POWER DB	25,8	230	0,95	0,90	75,9	1,00	27,2	75,9	30,2	60	16,3	60	16,3	60	16,3	60	16,3	60	16,3	60	16,3	0	0	60	16,3	
8	892-EL-L28	230V LIGHTING & SMALL POWER DB	25,7	230	0,95	0,90	75,3	1,00	27,0	75,3	30,0	80	21,6	80	21,6	80	21,6	80	21,6	80	21,6	80	21,6	0	0	80	21,6	
9	892-EL-L29	230V SMALL POWER DB	22,6	230	0,95	0,90	66,3	1,00	23,8	66,3	26,4	60	14,3	60	14,3	60	14,3	60	14,3	60	14,3	60	14,3	0	0	60	14,3	
10	893-EL-D21	230V DECK LIGHTING & SMALL POWER DB	9,0	230	0,95	0,90	26,3	1,00	9,4	26,3	10,5	30	2,8	30	2,8	30	2,8	30	2,8	30	2,8	30	2,8	0	0	30	2,8	
11	875-EL-G21	230V SMALL POWER DB (GALLEY)	12,2	230	0,95	0,90	35,8	1,00	12,8	35,8	14,3	30	3,9	30	3,9	30	3,9	30	3,9	30	3,9	30	3,9	0	0	30	3,9	
12	875-EL-NB2	230V NAVIGATION EQUIP. SMALL POWER DB	33,6	230	0,95	0,90	98,5	1,00	35,3	98,5	39,3	60	21,2	60	21,2	60	21,2	60	21,2	60	21,2	60	21,2	0	0	60	21,2	
13	875-EC-RB2	230V RADIO EQUIP. SMALL POWER DB	22,8	230	0,95	0,90	67,0	1,00	24,0	67,0	26,7	60	14,4	60	14,4	60	14,4	60	14,4	60	14,4	60	14,4	0	0	60	14,4	
		Total consumption of LS 21					**967,8**		**347,0**	**967,8**	**385,6**		**234,1**		**234,1**		**234,1**		**234,1**		**234,1**		**234,1**		**0,0**		**234,1**	
440VAC, LS22, 871-EN-S06																												
1	875-EN-P02	440V PANEL BOARD - A/C UNIT	112,8	440	0,95	0,80	194,8	1,00	118,7	194,8	148,4	50	59,4	50	59,4	50	59,4	50	59,4	50	59,4	50	59,4	0	0	50	59,4	
2	875-EN-G21	440V PANEL BOARD - GALLEY EQUIPMENT	51,1	440	0,95	0,80	88,2	1,00	53,8	88,2	67,2	50	26,9	50	26,9	50	26,9	50	26,9	50	26,9	50	26,9	0	0	50	26,9	
3	875-EN-P09	440V PANEL BOARD - WELDING RECEPTACLE	152,5	440	0,90	0,90	247,0	1,00	169,4	247,0	188,3	10	16,9	10	16,9	10	16,9	10	16,9	10	16,9	10	16,9	0	0	10	16,9	
4	875-EN-P52	440V PANEL BOARD - WELDING SHOP	70,9	440	0,90	0,90	114,9	1,00	78,8	114,9	87,5	10	7,9	10	7,9	10	7,9	10	7,9	10	7,9	10	7,9	0	0	10	7,9	
		Total consumption of LS 22					**644,8**		**420,7**	**644,8**	**491,4**		**111,1**		**111,1**		**111,1**		**111,1**		**111,1**		**111,1**		**0,0**		**111,1**	
230VAC, LS61, 875-EL-H12 (Power Panel)																												
1	875-EL-H22	230V ELECTRIC REHEATER/HEATER PANEL	46,8	230	0,95	0,90	137,4	1,00	49,3	137,4	54,7	50	24,6	50	24,6	50	24,6	50	24,6	80	39,4	50	24,6	0	0	50	24,6	
2	875-EL-H23	230V ELECTRIC REHEATER/HEATER PANEL	39,4	230	0,95	0,90	115,7	1,00	41,5	115,7	46,1	50	20,7	50	20,7	50	20,7	50	20,7	80	33,2	50	20,7	0	0	50	20,7	

S/N	Equipment number	DESCRIPTION	CONNECTED LOAD					L.F.				TRANSIT + DP 75%		MOORING + THR ASST 50%		DRILLING + DP 50%		DRILLING + DP 75%		BK REAM'G + DP 75%		WELL CIRC'N AFTER DP MAX SINGLE		DEAD SHIP POWER		EMERGENCY MODE		REMARK
			kW	VOLT	EFF	PF	AMP		kW	AMP	kVA	DF	kW	DF	kW	DF	kW	DF	kW	DF	kW	DF	kW	DF	kW	DF	kW	
3	875-EL-H24	230V ELECTRIC REHEATER/HEATER PANEL	32,4	230	0,95	0,90	95,2	1,00	34,1	95,2	37,9	50	17,1	50	17,1	50	17,1	50	17,1	80	27,3	50	17,1	0	0	50	17,1	
		Total consumption of LS 61					**348**		***125***	***348***	***139***		***62***		***62***		***62***		***62***		***100***		***62***		***0***		***62***	
230VAC, LS31, 871-EL-S03																												
1	891-EL-L31	230V LIGHTING & SMALL POWER DB	29,7	230	0,95	0,90	87,1	1,00	31,2	87,1	34,7	80	25,0	80	25,0	80	25,0	80	25,0	80	25,0	80	25,0	0	0	80	25,0	
2	891-EL-L32	230V LIGHTING & SMALL POWER DB	25,1	230	0,95	0,90	73,8	1,00	26,4	73,8	29,4	80	21,2	80	21,2	80	21,2	80	21,2	80	21,2	80	21,2	0	0	80	21,2	
3	891-EL-L33	230V LIGHTING & SMALL POWER DB	43,3	230	0,95	0,90	127,1	1,00	45,6	127,1	50,6	80	36,5	80	36,5	80	36,5	80	36,5	80	36,5	80	36,5	0	0	80	36,5	
4	891-EL-L34	230V LIGHTING & SMALL POWER DB	21,7	230	0,95	0,90	63,8	1,00	22,9	63,8	25,4	80	18,3	80	18,3	80	18,3	80	18,3	80	18,3	80	18,3	0	0	80	18,3	
5	891-EL-L35	230V SMALL POWER DB	22,7	230	0,95	0,90	66,7	1,00	23,9	66,7	26,6	80	19,1	80	19,1	80	19,1	80	19,1	80	19,1	80	19,1	0	0	80	19,1	
6	891-EL-L36	230V SMALL POWER DB	17,4	230	0,95	0,90	51,1	1,00	18,3	51,1	20,4	80	14,7	80	14,7	80	14,7	80	14,7	80	14,7	80	14,7	0	0	80	14,7	
7	893-EL-L37	230V LIGHTING & SMALL POWER DB FOR DRILLING AREA	31,6	230	0,95	0,90	92,7	1,00	33,3	92,7	36,9	60	20,0	60	20,0	60	20,0	60	20,0	60	20,0	60	20,0	0	0	60	20,0	
8	893-EL-D31	230V DECK LIGHTING & SMALL POWER DB	30,3	230	0,95	0,90	89,0	1,00	31,9	89,0	35,5	60	19,2	60	19,2	60	19,2	60	19,2	60	19,2	60	19,2	0	0	60	19,2	
9	893-EL-D32	230V DECK LIGHTING & SMALL POWER DB	30,8	230	0,95	0,90	90,3	1,00	32,4	90,3	36,0	60	19,4	60	19,4	60	19,4	60	19,4	60	19,4	60	19,4	0	0	60	19,4	
		Total consumption of LS 31							***266***	***742***	***295***		***193***		***193***		***193***		***193***		***193***		***193***		***0***		***193***	
440VAC, LS32, 875-EN-P03 (Power Panel)																												
1	875-EN-P03	440V PANEL BOARD - A/C UNIT	76,5	440	0,95	0,90	117,4	1,00	80,5	117,4	89,5	50	40,3	50	40,3	50	40,3	50	40,3	50	40,3	50	40,3	0	0	50	40,3	
		Total consumption of LS 32					**117,4**		**80,5**	**117,4**	**89,5**		**40,3**		**40,3**		**40,3**		**40,3**		**40,3**		**40,3**		**0,0**		**40,3**	
230VAC, LS41, 871-EL-S04																												
1	891-EL-L41	230V LIGHTING & SMALL POWER DB	23,7	230	0,95	0,90	69,7	1,00	25,0	69,7	27,8	80	20,0	80	20,0	80	20,0	80	20,0	80	20,0	80	20,0	0	0	80	20,0	
2	891-EL-L42	230V LIGHTING & SMALL POWER DB	35,4	230	0,95	0,90	104,0	1,00	37,3	104,0	41,4	80	29,8	80	29,8	80	29,8	80	29,8	80	29,8	80	29,8	0	0	80	29,8	
3	891-EL-L43	230V LIGHTING & SMALL POWER DB	30,1	230	0,95	0,90	88,4	1,00	31,7	88,4	35,2	80	25,3	80	25,3	80	25,3	80	25,3	80	25,3	80	25,3	0	0	80	25,3	
4	891-EL-L44	230V LIGHTING & SMALL POWER DB	47,5	230	0,95	0,90	139,5	1,00	50,0	139,5	55,6	80	40,0	80	40,0	80	40,0	80	40,0	80	40,0	80	40,0	0	0	80	40,0	
5	891-EL-L45	230V SMALL POWER DB	17,2	230	0,95	0,90	50,5	1,00	18,1	50,5	20,1	80	14,5	80	14,5	80	14,5	80	14,5	80	14,5	80	14,5	0	0	80	14,5	
6	891-EL-L46	230V SMALL POWER DB	19,8	230	0,95	0,90	58,1	1,00	20,8	58,1	23,2	80	16,7	80	16,7	80	16,7	80	16,7	80	16,7	80	16,7	0	0	80	16,7	
7	893-EL-L47	230V LIGHTING & SMALL POWER DB FOR DRILLING AREA	41,9	230	0,95	0,90	122,9	1,00	44,1	122,9	48,9	80	35,2	80	35,2	80	35,2	80	35,2	80	35,2	80	35,2	0	0	80	35,2	
8	931-EH-D41	230V DECK LIGHTING & SMALL POWER DB	24,5	230	0,95	0,90	71,9	1,00	25,8	71,9	28,7	80	20,6	80	20,6	80	20,6	80	20,6	80	20,6	80	20,6	0	0	80	20,6	
9	931-EH-D42	230V DECK LIGHTING & SMALL POWER DB	30,9	230	0,95	0,90	90,8	1,00	32,6	90,8	36,2	60	19,5	80	26,0	60	19,5	80	26,0	80	26,0	80	26,0	0	0	80	26,0	
		Total consumption of LS 41					**795,8**		**285,3**	**795,8**	**317,0**		**221,7**		**228,3**		**221,7**		**228,3**		**228,3**		**228,3**		**0,0**		**228,3**	
440VAC, LS42, 875-EN-P04 (Power Panel)																												
1	875-EN-P04	440V PANEL BOARD - A/C UNIT	61,0	440	0,95	0,80	105,3	1,00	64,2	105,3	80,3	50	32,1	50	32,1	50	32,1	50	32,1	50	32,1	50	32,1	0	0	50	32,1	
		Total consumption of LS 42					**105,3**		**64,2**	**105,3**	**80,3**		**32,1**		**32,1**		**32,1**		**32,1**		**32,1**		**32,1**		**0,0**		**32,1**	

Ottjal I G F
Project NO: 3025

ELECTRICAL LOAD ANALYSIS

S/N	Equipment number	DESCRIPTION	MCC	ROOM NO	SER-VICE	STARTER TYPE	CONNECTED LOAD kW	VOLT	EFF	PF	AMP	L.F.	TRANSIT + DP 75% kW	AMP	kVA	MOORING + THR ASST 50% DF	kVA	kW	DRILLING + DP 90% DF	kVA	kW	DRILLING + DP 75% DF	kVA	kW	BK REAM'G + DP 75% DF	kVA	kW	WELL CIRC'N AFTER DP MAX SINGLE FAILURE DF	kVA	kW	DEAD SHIP POWER DF	kVA	kW	EMERGENCY MODE DF	kVA	kW	REMARK	Reference Low Speed Rating
MARINE, 690VAC MCC 11, 873-EN-M02																																						
6	981-FC-001-A	CALORIFIER	MCC11	F/S/M1.29	M	FDR	130,0	690	0,95	0,84	136,3	0,80	109,5	109,0	130,3	25	33	27,4	25	33	27,4	25	33	27,4	25	33	27,4	25	33	27,4	25	33	27,4	0	0	0	0	0	0	
17	702-CF-001-A	FUEL OIL SEPERATOR	MCC11	F/P/M1.31	M	FDR	175,0	690	0,95	0,94	184,0	0,80	147,4	131,2	156,8	50	78	73,7	50	78	73,7	50	78	73,7	50	78	73,7	50	78	73,7	50	78	73,7	0	0	0,0	0	0	0	
20	721-PA-001-B	FWD MAIN SEA COOLING WATER PUMP	MCC11	F/P/P	M	SFT	152,0	690	0,92	0,90	154,2	0,80	132,7	123,4	147,4	90	74	66,3	50	74	66,3	90	74	66,3	90	74	66,3	50	74	66,3	100	147	132,7	0	0	0,0	100	169	152	
24	722-IF-002-A	HT-PREHEATING UNIT	MCC11	F/P/M1.10	M	FDR	109,8	690	0,95	0,90	109,4	1,00	114,5	106,4	127,2	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	80	102	91,4	0	0	0	
		Total consumption of MCC 11					*568*				*591*		*504*	*470*	*562*		*216*	*196*		*216*	*196*		*216*	*196*		*216*	*196*		*216*	*196*		*290*	*262*		*102*	*92*		*169*	*152*	
MARINE, 690VAC MCC 12, 873-EN-M01																																						
13	721-PA-001-A	FWD MAIN SEA COOLING WATER PUMP	MCC12	F/P/P	M	SFT	152,0	690	0,92	0,90	154,2	0,80	132,7	123,4	147,4	90	74	66,3	50	74	66,3	90	74	66,3	90	74	66,3	50	74	66,3	100	147	132,7	0	0	0	0	0	0	
16	733-KC-001-A	SERVICE AIR COMPRESSOR	MCC12	A/P/M135/6	M	FDR	151,0	690	0,88	0,86	167,9	0,80	137,3	134,3	160,6	50	80	68,6	50	80	68,6	50	80	68,6	50	80	68,6	50	80	68,6	50	80	68,6	0	0	0	0	0	0	
		875-EN-M12, Consumption of Panel board 12																																					
13	965-ET-T1.0-C	SMALL POWER TRANSFORMER 690V/400V FOR HEAT TRACING, 100KVA	MPB22	M213	M	FDR	100,0	690	1,00	1,00	83,7	0,80	80,0	71,1	85,0	40	34	34,0	40	34	34,0	40	34	34,0	40	34	34,0	40	34	34,0	40	34	34,0	0	0	0	0	0	0	
		Total consumption of MCC 12					*403*				*406*		*355*	*329*	*393*		*188*	*169*		*188*	*169*		*188*	*169*		*188*	*169*		*188*	*169*		*262*	*235*		*0*	*0*		*0*	*0*	
DRILLING, 690VAC MCC 13, 873-EN-M03																																						
19	343-EM10.1A	HYDRAULIC POWER UNIT (HPU), PUMP MOTOR 1	MCC13	M309A	D	DOL	165,0	690	0,95	0,87	166,3	0,70	121,1	116,4	139,2	0	0	0,0	30	42	36,3	30	42	36,3	30	42	36,3	30	42	36,3	15	21	18,2	0	0	0	0	0	0	
20	343-EM10.1B	HYDRAULIC POWER UNIT (HPU), PUMP MOTOR 2	MCC13	M309A	D	DOL	165,0	690	0,95	0,87	166,3	0,70	121,1	116,4	139,2	0	0	0,0	30	42	36,3	30	0	36,3	30	42	36,3	30	42	36,3	15	21	18,2	0	0	0	0	0	0	
21	343-EM10.1C	HYDRAULIC POWER UNIT (HPU), PUMP MOTOR 3	MCC13	M309A	D	DOL	165,0	690	0,95	0,87	166,3	0,70	121,1	116,4	139,2	0	0	0,0	30	42	36,3	30	42	36,3	30	42	36,3	30	42	36,3	15	21	18,2	0	0	0	0	0	0	
		Total consumption of MCC 13					*495*				*499*		*363*	*349*	*417*		*0*	*0*		*126*	*109*		*83*	*109*		*125*	*109*		*125*	*109*		*63*	*54*		*0*	*0*		*0*	*0*	
MARINE, 690VAC MCC 14, 873-EN-M04																																						
5	571-HE-001A	CHILLER UNIT	MCC14	F/P/M1.32	V	FDR	357,5	690	1,00	0,91	327,0	0,80	286,0	261,6	312,7	25	78	71,5	25	78	71,5	90	196	143,0	90	196	143,0	50	196	143,0	25	78	71,5	0	0	0	0	0	0	
20	876-ER-V01	VFD FOR FWD PS ENGINE ROOM VENTILATION FAN	MCC14	F/P/M1.09	V	FDR	220,0	690	0,96	0,80	242,2	0,80	138,9	145,3	173,7	100	174	138,9	100	174	138,9	100	174	138,9	100	174	138,9	100	174	138,9	100	174	138,9	0	0	0	100	275	220	
		Total consumption of MCC 14					*578*				*569*		*425*	*407*	*486*		*352*	*250*		*252*	*250*		*330*	*382*		*330*	*382*		*330*	*382*		*252*	*250*		-	-		*275*	*220*	
MARINE, 690VAC MCC 15, 873-EN-M05																																						
		Total consumption of MCC15					-				-		-	-	-		*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
MARINE, 690VAC MCC 21, 873-EN-M06																																						
6	981-FC-001-B	CALORIFIER	MCC21	F/S/M1.29	M	FDR	130,0	690	0,95	0,84	136,3	0,80	109,5	109,0	130,3	25	33	27,4	25	33	27,4	25	33	27,4	25	33	27,4	25	33	27,4	25	33	27,4	0	0	0	0	0	0	
15	702-CF-001-B	FUEL OIL SEPERATOR	MCC21	F/S/M1.30	M	FDR	175,0	690	0,95	0,94	184,0	0,80	147,4	131,2	156,8	50	78	73,7	50	78	73,7	50	78	73,7	50	78	73,7	50	78	73,7	50	78	73,7	0	0	0	0	0	0	
17	721-PA-001-D	FWD MAIN SEA COOLING WATER PUMP	MCC21	F/P/85	M	SFT	152,0	690	0,92	0,90	154,2	0,80	132,7	123,4	147,4	90	74	66,3	50	74	66,3	90	74	66,3	90	74	66,3	50	74	66,3	100	147	132,7	0	0	0	100	169	152	
21	722-IF-002-B	HT-PREHEATING UNIT	MCC21	F/S/M1.22	M	FDR	109,8	690	0,95	0,90	109,4	1,00	114,5	106,4	127,2	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	0	0	0	0	0	0	
29	965-ET-T1.0-A	TRANSFORMER FOR HEAT TRACING SYSTEM	MCC21	F/S/M1.21	M	FDR	200,0KVA	690	1,00	1,00	167,3	0,80	160,0	133,9	160,0	90	80	80,0	50	80	80,0	90	80	80,0	90	80	80,0	50	80	80,0	50	80	80,0	0	0	0	0	0	0	
		Total consumption of MCC 21					*786*				*728*		*664*	*604*	*722*		*296*	*276*		*296*	*276*		*296*	*276*		*296*	*276*		*296*	*276*		*370*	*342*		*-*	*-*		*169*	*152*	
MARINE, 690VAC MCC 22, 873-EN-M07																																						
14	721-PA-001-C	FWD MAIN SEA COOLING WATER PUMP	MCC22	F/P/85	M	SFT	152,0	690	0,92	0,90	154,2	0,80	132,7	123,4	147,4	90	74	66,3	50	74	66,3	90	74	66,3	90	74	66,3	50	74	66,3	100	147	132,7	0	0	0	0	0	0	
		Total consumption of MCC 22					*152*				*154*		*133*	*123*	*147*		*74*	*66*		*74*	*66*		*74*	*66*		*74*	*66*		*74*	*66*		*147*	*133*		*-*	*-*		*-*	*-*	
DRILLING, 690VAC MCC 23, 873-EN-M08																																						
19	332-EM100A	BOP SYSTEM, HPU WITH MIXING SYSTEM, PUMP #1	MCC23	M/6/6	D	DOL	110,0	690	0,94	0,85	115,2	0,80	93,6	92,2	110,1	0	0	0,0	55	55	46,8	55	55	46,8	55	55	46,8	55	55	46,8	50	55	46,8	0	0	0	0	0	0	
24	343-EM10.1D	HYDRAULIC POWER UNIT (HPU), PUMP MOTOR 4	MCC23	M309A	D	DOL	165,0	690	0,95	0,87	166,3	0,70	121,1	116,4	139,2	0	0	0,0	30	42	36,3	30	42	36,3	30	42	36,3	30	42	36,3	15	21	18,2	0	0	0	0	0	0	
25	343-EM10.1E	HYDRAULIC POWER UNIT (HPU), PUMP MOTOR 5	MCC23	M309A	D	DOL	165,0	690	0,95	0,87	166,3	0,70	121,1	116,4	139,2	0	0	0,0	30	42	36,3	30	42	36,3	30	42	36,3	30	42	36,3	15	21	18,2	0	0	0	0	0	0	
26	343-EM10.1F	HYDRAULIC POWER UNIT (HPU), PUMP MOTOR 6	MCC23	M309A	D	DOL	165,0	690	0,95	0,87	166,3	0,70	121,1	116,4	139,2	0	0	0,0	30	42	36,3	30	42	36,3	30	42	36,3	30	42	36,3	15	21	18,2	0	0	0	0	0	0	
29	966-EY-004-A	BRAKING RESISTOR COOLING PUMP A	MCC23	M/2/6	D	DOL	110,0	690	0,95	0,84	115,0	0,80	92,3	92,0	109,9	0	0	0,0	50	55	46,2	50	55	46,2	50	55	46,2	50	55	46,2	50	55	46,2	0	0	0	0	0	0	
		Total consumption of MCC 23					*715*				*729*		*549*	*533*	*638*		*-*	*-*		*235*	*202*		*235*	*202*		*235*	*202*		*235*	*202*		*173*	*147*		*0*	*0*		*0*	*0*	
MARINE, 690VAC MCC 24, 873-EN-M09																																						
6	571-HE-001B	CHILLER UNIT	MCC24	F/P/M1.32	V	FDR	357,5	690	1,00	0,91	327,0	0,80	286,0	261,6	312,7	25	78	71,5	25	78	71,5	90	196	143,0	90	196	143,0	50	196	143,0	25	78	71,5	0	0	0	0	0	0	
23	876-ER-V02	VFD FOR FWD SB ENGINE ROOM VENTILATION FAN	MCC24	F/S/M1.21	V	FDR	220,0	690	0,96	0,80	242,2	0,80	138,9	145,3	173,7	100	174	138,9	100	174	138,9	100	174	138,9	100	174	138,9	100	174	138,9	100	174	138,9	0	0	0	100	275	220	
		Total consumption of MCC 24					*578*				*569*		*425*	*407*	*486*		*252*	*250*		*252*	*250*		*330*	*382*		*330*	*382*		*330*	*382*		*252*	*250*		*-*	*-*		*275*	*220*	
MARINE, 690VAC MCC 31, 873-EN-M11																																						
12	721-PA-002-B	AFT MAIN SEA COOLING WATER PUMP	MCC31	A/P/29P	M	SFT	152,0	690	0,92	0,90	154,2	0,80	132,7	123,4	147,4	90	74	66,3	50	74	66,3	90	74	66,3	90	74	66,3	50	74	66,3	100	147	132,7	0	0	0	100	169	152	
16	722-IF-002-C	HT-PREHEATING UNIT	MCC31	A/P/M147.A	M	FDR	109,8	690	0,95	0,90	109,4	1,00	114,5	106,4	127,2	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	0	0	0	0	0	0	
17	761-EC-001-A	FRESH WATER GENERATOR (761-XX-001-A)	MCC31	A/P/M135.A	M	FDR	101,0	690	0,94	0,89	103,6	0,80	85,6	80,0	96,2	50	48	42,8	50	48	42,8	50	48	42,8	50	48	42,8	50	48	42,8	0	0	0,0	0	0	0	0	0	0	
24	813-PA-001-D	MAIN FIRE PUMP	MCC31	A/S/265	M	SFT	400,0	690	0,96	0,87	403,0	0,80	332,7	320,0	392,4	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	100	460	400	
		Total consumption of MCC 31					*762*				*761*		*665*	*630*	*753*		*154*	*138*		*154*	*138*		*154*	*138*		*154*	*138*		*179*	*161*		*0*	*0*		*429*	*552*	
MARINE, 690VAC MCC 32, 873-EN-M10																																						
2	874-JB-007	POWER J/B FOR R.O.V UNIT	MCC32	N/A	D	FDR	200,0	690	0,95	0,85	207,2	0,80	168,4	165,8	198,1	0	0	0,0	25	50	42,1	25	50	42,1	25	50	42,1	25	50	42,1	0	0	0,0	0	0	0	0	0	0	
5	721-PA-002-A	AFT MAIN SEA COOLING WATER PUMP	MCC32	A/P/29P	M	SFT	152,0	690	0,92	0,90	154,2	0,80	132,7	123,4	147,4	90	74	66,3	50	74	66,3	90	74	66,3	90	74	66,3	50	74	66,3	100	147	132,7	0	0	0	0	0	0	
8	733-KC-001-B	SERVICE AIR COMPRESSOR	MCC32	A/P/M135/6	M	FDR	151,0	690	0,88	0,86	167,9	0,80	137,3	134,3	160,6	50	80	68,6	50	80	68,6	50	80	68,6	50	80	68,6	50	80	68,6	50	80	68,6	0	0	0	0	0	0	
12	813-PA-001-A	MAIN FIRE PUMP	MCC32	A/P/29P	M	SFT	400,0	690	0,96	0,87	403,0	0,80	332,7	320,0	392,4	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0	
		875-EN-M32, Consumption of Panel board 32																																					
		Total consumption of MCC 32					*903*				*929*		*771*	*743*	*889*		*154*	*135*		*204*	*177*		*204*	*177*		*204*	*177*		*228*	*201*		*0*	*0*		*0*	*0*	
DRILLING, 690VAC MCC 33, 873-EN-M15																																						
40	371-EM-001	CEMENTING UNIT HPU MOTOR	MCC33	M/3/15	D	FDR	160,0	690	0,92	0,90	162,6	0,80	139,9	130,1	155,4	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0	

Oil field G F
Project NO: 3025

ELECTRICAL LOAD ANALYSIS

S/N	Equipment number	DESCRIPTION	MCC	ROOM NO	SERVICE	STARTER TYPE	CONNECTED LOAD kW	VOLT	EFF	PF	AMP	L.F.	kW	AMP	kVA	TRANSIT + DP 75% DF	kVA	kW	MOORING + THR ASST 50% DF	kVA	kW	DRILLING + DP 90% DF	kVA	kW	DRILLING + DP 75% DF	kVA	kW	BK REAM'G + DP 75% DF	kVA	kW	WELL CIRC'N AFTER DP MAX SINGLE FAILURE DF	kVA	kW	DEAD SHIP POWER DF	kVA	kW	EMERGENCY MODE DF	kVA	kW	REMARK	Reference Low Speed Rating
		Total consumption of																																							
		MCC 33					*160*				*163*		*140*	*130*	*155*		*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*		
MARINE, 690VAC MCC 34, 873-EN-M12																																								
23	721-PA-003-A	SEA WATER SERVICE PUMP	MCC34	A/P/26P	M	SFT	490,0	690	0,96	0,87	460,0	0,80	374,3	360,0	430,3	90	215	187,2	50	215	187,2	90	215	187,2	90	215	187,2	50	215	187,2	90	215	187,2	0	0	0	0	0	0		
30	876-ER-V03	VFD FOR AFT PS ENGINEROOM VENTILATION FAN	MCC34	A/P/M146	V	FDR	220,0	690	0,95	0,80	242,2	0,80	138,9	145,3	173,7	100	174	138,9	100	174	138,9	100	174	138,9	100	174	138,9	100	174	138,9	100	174	138,9	0	0	0	0	0	0		
		Total consumption of																																							
		MCC 34					*670*				*692*		*513*	*505*	*604*		*389*	*326*		*389*	*326*		*389*	*326*		*389*	*326*		*389*	*326*		*389*	*326*		-	-		*275*	*230*		
MARINE, 690VAC MCC 41, 873-EN-M13																																								
10	721-PA-002-D	AFT MAIN SEA COOLING WATER PUMP	MCC41	A/S/26S	M	SFT	1520	690	0,92	0,90	154,2	0,80	132,7	123,4	147,4	90	74	66,3	50	74	66,3	90	74	66,3	90	74	66,3	50	74	66,3	100	147	132,7	0	0	0	100	169	152		
14	722-IF-002-O	HT-PREHEATING UNIT	MCC41	A/S/M102A	M	FDR	109,8	690	0,95	0,90	106,4	1,00	114,5	106,4	127,2	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	25	32	28,6	0	0	0	0	0	0		
15	761-EC-001-B	FRESH WATER GENERATOR (761-XX-001-B) MOTOR STARTER PANEL	MCC41	A/P/M135A	M	FDR	101,0	690	0,94	0,89	103,6	0,80	85,6	80,5	96,2	50	48	42,8	50	48	42,8	50	48	42,8	50	48	42,8	50	48	42,8	50	48	42,8	0	0	0	0	0	0		
20	813-PA-001-B	MAIN FIRE PUMP	MCC41	A/P/26P	M	SFT	400,0	690	0,96	0,87	401,0	0,80	332,7	320,0	382,4	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	100	400	400		
24	865-ET-T10-B	TRANSFORMER FOR HEAT TRACING SYSTEM	MCC41	A/S/M153	M	FDR	200,0KVA	690	1,00	1,00	167,3	0,80	160,0	133,9	160,0	90	80	80,0	50	80	80,0	90	80	80,0	90	80	80,0	50	80	80,0	50	80	80,0	0	0	0	0	0	0		
		Total consumption of																																							
		MCC 41					*942*				*929*		*826,5*	*764,1*	*913,2*		*233,6*	*217,8*		*233,6*	*217,8*		*233,6*	*217,8*		*233,6*	*217,8*		*233,6*	*217,8*		*233,6*	*217,8*		*259,2*	*241,3*		*620,7*	*592,0*		
MARINE, 690VAC MCC 42, 873-EN-M14																																								
3	874-JB-014	POWER J/B FOR WELL TEST EQUIPMENT TRANSFER PUMP	MCC42	N/A	D	FDR	160,0	690	0,89	0,85	165,9	0,80	134,9	132,7	158,6	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
5	721-PA-002-C	AFT MAIN SEA COOLING WATER PUMP	MCC42	A/S/26S	M	SFT	1520	690	0,92	0,90	154,2	0,80	132,7	123,4	147,4	90	74	66,3	50	74	66,3	90	74	66,3	90	74	66,3	50	74	66,3	100	147	132,7	0	0	0	0	0	0		
8	733-KC-001-C	SERVICE AIR COMPRESSOR	MCC42	F/P/M139B	M	FDR	151,0	690	0,88	0,86	167,9	0,80	137,3	134,3	160,6	90	80	68,6	50	80	68,6	90	80	68,6	90	80	68,6	50	80	68,6	50	80	68,6	0	0	0	0	0	0		
12	813-PA-001-C	MAIN FIRE PUMP	MCC42	A/S/26S	M	SFT	400,0	690	0,96	0,87	401,0	0,80	332,7	320,0	382,4	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0,0	0	0	0	0	0	0		
		Total consumption of																																							
		MCC 42					*853*				*888*		*737*	*710*	*849*		*154*	*135*		*154*	*135*		*154*	*135*		*154*	*135*		*154*	*135*		*228*	*201*		-	-		-	-		
DRILLING, 690VAC MCC 43, 873-EN-M16																																								
37	332-EM-W08	BOP SYSTEM, HPU WITH MOORING SYSTEM, PUMP #2	MCC43	M/W6	D	DOL	110,0	690	0,94	0,86	115,2	0,80	93,6	92,2	110,1	0	0	0,0	50	55	46,8	90	99	46,8	90	55	46,8	50	55	46,8	50	55	46,8	0	0	0	0	0	0		
40	866-EY-004-B	BRAKING RESISTOR COOLING PUMP B	MCC43	M/2/6	D	DOL	110,0	690	0,90	0,84	115,0	0,80	92,3	92,0	109,9	0	0	0,0	50	55	46,2	90	99	46,2	90	55	46,2	50	55	46,2	50	55	46,2	0	0	0	0	0	0		
		Total consumption of																																							
		MCC 43					*220*				*230*		*186*	*184*	*220*		-	-		*110*	*93*		*110*	*93*		*110*	*93*		*110*	*93*		*110*	*93*		-	-		-	-		
MARINE, 690VAC MCC 44, 873-EN-M17																																								
24	721-PA-003-B	SEA WATER SERVICE PUMP	MCC44	A/S/26S	M	SFT	490,0	690	0,96	0,87	460,0	0,80	375,2	360,0	430,2	90	215	187,6	50	215	187,6	90	215	187,6	90	215	187,6	50	215	187,6	90	215	187,6	0	0	0	0	0	0		
27	876-ER-V04	VFD FOR AFT SB ENGINEROOM VENTILATION FAN	MCC44	A/S/M102B	V	FDR	220,0	690	0,95	0,80	242,2	0,80	138,9	145,3	173,7	100	174	138,9	100	174	138,9	100	174	138,9	100	174	138,9	100	174	138,9	100	174	138,9	0	0	0	100	275	220		
28	876-ER-V10	VFD FOR MUD PUMP ROOM VENTILATION FAN	MCC44	A/S/M153	V	FDR	140,0	690	0,95	0,80	154,1	0,80	88,4	92,5	110,5	100	111	88,4	100	111	88,4	100	111	88,4	100	111	88,4	100	111	88,4	100	111	88,4	0	0	0	0	0	0		
		Total consumption of																																							
		MCC 44					*510*				*846*		*601*	*590*	*714*		*499*	*415*		*499*	*415*		*499*	*415*		*499*	*415*		*499*	*415*		*499*	*415*		-	-		*275*	*220*		

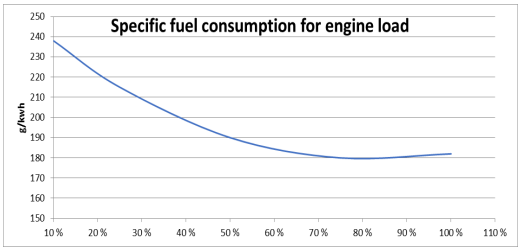
I. DSA Fuel prognosis

DSA Brennstoff prognose

Forbrukt Brennstoff til Diesel generator for ett år frå Q4-2017 til Q4-2018.

Tall er hentet fra offisielle verdier gitt til skattedirektoratet.

Årlige Verdier		
Årlig forbruk	11 245	tonn
Totalt driftstimer på alle generatorer	24 775	timer
Totalt NoX utslipp	595 985	kg



Beregnet spesifikt forbruk basert på gjennomsnittsverdier:		
Antall diesel generatorer i drift i gjennomsnitt	2,8	
Gjennomsnitt per dag	30,8	tonn
Gjennomsnittlig generator belastning	39 %	
Gjennomsnittlig totalt effektforbruk	6,4	MW

Prognose verdier baser på foreslåtte tiltak:

Gjennom de forslåtte tiltakene vil en redusere kritikaliteten og kravet til redundans.
Dette er forventet å føre til reduksjon i direkte forbruk samt økt effektivitet på generatorene.
Følgende reduksjoner er estimert:

Reductions assuming battery reserve:	**Effekt**	
Seawater cooling pumps with VFD control:	468	kW
Only running two freshwater cooling pumps:	128	kW
Reducing seawater service:	310	kW
LED lights	161	kW
Reduce HVAC & seperate VFD windlass	300	kW
Total	**1367**	**kW**

Beregnet nytt spesifikt forbruk basert på gjennomsnittsverdier:		
Nytt beregnet gjennomsnittsforbruk	5,0	MW
Ny beregnet gjennomsnittlig belastning (2 DGs)	43 %	
Nytt beregnet daglig forbruk	23,5	tonn
Nytt beregnet årlig forbruk	8 569	tonn
Nytt beregnet totalt NoX utslipp	454 131	kg

Beregnet årlig NoX reduksjon	**141 854**	**kg**

J. Kongsberg Functional Design Document

3 POWER PLANT

3.1 Description

To comply with the classification requirement of the drilling platform the electrical power system is split into four sections and each section comprises an engine room, high voltage switchboard room and ship service switchboard room feeding 690V, 440V and 230V distribution. The sections of the electrical power system are placed in the four quadrants of the platform: Port Fwd, Stbd Fwd, Stbd Aft and Port aft.

One generator in each switch board will act as emergency generator. These are generator 2(B), 4(D), 6(F), 8(H) The only difference between the emergency generators and the others are that they will have automatic start up and connection controlled by the switch board in case of PMS fails to start the engine after a black out. This is done with at PMS alive signal from IAS to the above generators.

3.1.1 Port Forward SWBD

- 2 Main Diesel Generators (DG1(A) and DG2(B)) each rated 6144 KVA
- 11 kV Switch Board HS1 with
    - Transfer Circuit Breaker (NO) to HS2
    - Transfer Circuit Breaker (NO) to HS3
    - Azimuth Thruster TR4 Circuit breaker
    - Azimuth Thruster TR7 Circuit Breaker
    - Generator DG1 Circuit Breaker
    - Generator DG2 Circuit Breaker
    - 11KV/690V Ship Service Transformer Circuit Breaker feeder to LS1
    - 11KV/690V Drilling Transformer Circuit Breaker feeder to DSWB1A

3.1.2 Starboard Forward SWBD

- 2 Main Diesel Generators (DG3(C) and DG4(D)) each rated 6144 kVA
- 11 kV Switch Board HS2 with
    - Transfer Circuit Breaker (NO) to HS1
    - Transfer Circuit Breaker (NO) to HS4
    - Azimuth Thruster TR1 Circuit breaker
    - Azimuth Thruster TR6 Circuit Breaker
    - Generator DG3 Circuit Breaker
    - Generator DG4 Circuit Breaker
    - 11KV/690V Ship Service Transformer Circuit Breaker feeder to LS2
    - 11KV/690V Drilling Transformer Circuit Breaker feeder to DSWB1B

3.1.3 Port Aft SWBD

- 2 Main Diesel Generators (DG5(E) and DG6(F)) each rated 6144 kVA
- 11 kV Switch Board HS3 with
    - Transfer Circuit Breaker (NO) to HS1
    - Transfer Circuit Breaker (NO) to HS4
    - Azimuth Thruster TR2 Circuit breaker
    - Azimuth Thruster TR5 Circuit Breaker
    - Generator DG5 Circuit Breaker
    - Generator DG6 Circuit Breaker
    - 11KV/690V Ship Service Transformer Circuit Breaker feeder to LS3
    - 11KV/690V Drilling Transformer Circuit Breaker feeder to DSWB2A

3.1.4 Starboard Aft SWBD

- 2 Main Diesel Generators (DG7(G) and DG8(H)) each rated 6144 kVA
- 11 kV Switch Board HS4 with
    - Transfer Circuit Breaker (NO) to HS2
    - Transfer Circuit Breaker (NO) to HS3
    - Azimuth Thruster TR8 Circuit breaker
    - Azimuth Thruster TR3 Circuit Breaker
    - Generator DG7 Circuit Breaker
    - Generator DG8 Circuit Breaker
    - 11KV/690V Ship Service Transformer Circuit Breaker feeder to LS4
    - 11KV/690V Drilling Transformer Circuit Breaker feeder to DSWB2B

3.1.5 PMS philosophy

The power management system is a function of the Integrated Automation System (IAS). In the event of failure of the IAS system or operator choice the Electric Power System can be controlled through manual controls on the appropriate switch board panels.

Depending on the consequence analysis, environment criteria the power system could be:

- In two splits bus mode, the HV switchboards are interconnected by pairs. The normal configuration for two split bus modes is to have Stbd Fwd (HS2) and Port Fwd (HS1) switch boards interconnected via the bus ties, and Stbd Aft (HS4) and Port Aft (HS3) switch boards interconnected via the bus ties.
- In four splits. Under these conditions each quadrant will operate autonomously.

In case of “Isochronous mode” the PMS system will control the power generation system by starting/stopping diesel generators as the platform load increases or decreases but the load sharing will be independent of the PMS. In case of "Droop mode", the PMS can share the load see 5.4.2 for details.

Locally the Power Plant will synchronize incoming generators onto active bus and load up generators and synchronize bus sections that are being coupled.

In the event that a fault, either electrical or mechanical trips a generator the highest priority (see 5.3) generator will be started by PMS. Further while in two split bus mode and a bus section trip on fault, the PMS system will sectionalize the remaining bus.

The PMS system will provide an effective, coordinated blackout prevention system which will incorporate propulsion drive power limitation and drilling phase-back.

Blackout prevention is essential to maintain the drilling platform position whilst drilling and where load available for shedding would be only a small percentage of platform's load and is therefore not implemented.

Emphasis will be placed on the phase back function of the drilling drives and power limit of thruster drives.

Priority of drilling system or thrusters depends on operational mode for the drilling system (See 5.7 Blackout Prevention

The PMS system will provide available generator capacity signals for each 690V Switchboard Drilling Transformer Feeder and NOV will use these signals to phase back the drilling load in compliance with available power. The PMS system will also ensure that the azimuth thruster drives will not overload the power system for any bus mode configuration. These signals provide the drives with drive power limitation data based on power available for thrust which the drive converters use to operate within power system limits. This function is active in all thruster activities including DP modes.

3.1.5.1 Functionality

The main functions of the PMS system are listed below (controlled and displayed on VDU):

- Display 11kV and principal 690V switchboards circuit breaker status
- Display drilling switchboard circuit breaker status.
- Manually control opening and closing principle 11kV and 690V switchboard circuit breakers.
- Symmetric/Asymmetric sharing of load between interconnected generators sets when in droop mode.
- Operator initiated starting and stopping of diesel generator sets
- Automatic initiation for starting and connecting diesel generating set on low spinning reserve (Load depending start)
- Automatic initiation for stopping diesel generating set on high spinning reserve (Load Depending stop)
- Set up priorities for starting/stopping diesel generators on falling/rising load (Standby number allocation)
- Operator initiated automatic synchronizing and dead bus bar closing of 11kV bus ties and transfer circuit breakers.
- Automatically restore main 11kV and LV switchboards in the event of a system blackout.
- Sequential restart previously essential running pumps and reconnect essential supplies upon restoration of supply after a blackout.
- Display diesel engine exhaust gas temperature deviation checks.
- Provide a power available analogue signal for each thruster converter to ensure blackout prevention.
- Provide power available analogue signals (Drilling Auxiliary Power Available and Drawworks Power Available) to each NOV DPLS to ensure black out prevention of drilling consumers.
- Control, Monitoring and alarm functions towards power generation and distribution (Total power, available power, each generator power, black-out, voltage, frequency, breaker status, etc)
- Automatic start of stand-by generator due to fault
- Load dependent start/stop control activation
- Power reservation of heavy consumers
- Start blocking of heavy consumers
- Automatic black-out recovery

The PMS will not try to control equipment when the equipment is in local control mode.

3.2 Operation Modes

3.2.1 Configuration of Power Distribution

As explain above, the rig's main electrical power generation system consists of eight (8) diesel generators arranged in four engine rooms and four (4) high voltage switchboards. The two (2) generators in each engine room are powering a dedicated high voltage (11 kV) switchboard.

The high voltage system is powering the various consumers, position keeping systems, drilling system and Emergency systems. The main electrical distribution system has been conceptualized to work with four different voltage levels (11kV, 690V, 440V, 230V) this will offer highest degree of operational flexibility.

Electrical power distribution system has been conceptualized to offer operational flexibility required for DP-3 mode. The rig's power distribution system is able to operate in all three modes of operation (Open ring/No split, two (2) and four (4) split mode), however only 2 and 4 splits shall be used for DP operations. This has been ensured by providing necessary transfer feeders for connecting all four 11 kV switchboards each others. The transfer breakers of high and low voltage switchboards are equipped with synchronizing facility to facilitate synchronization request from local as well as from remote location. Hence the operator has options to operate switchboards sections by configuring operation of transfer feeder to offer a power distribution system that is suitable for both general and DP-3 modes of rig operation. The PMS will automatically control the generation and distribution system dependent upon 11kV switchboard configuration.

These three (3) configurations are:

3.2.2 Power distribution arrangement during “Open ring / No split”

All 11 kV switchboards are connected with transfer feeders (open ring, it is not possible to close all bus-tie breakers). This is a rare operating mode. This mode may be used when rig is at Yard (harbor, shore). No operations are envisaged. The rig may receive power supply from shore connection box. Main generators and shore power can not power the same switchboard at the same time (main power generation can not be in parallel with shore power).

The PMS in this mode control this whole power system as one unit.

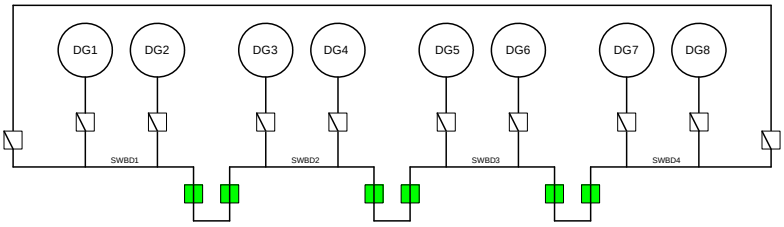
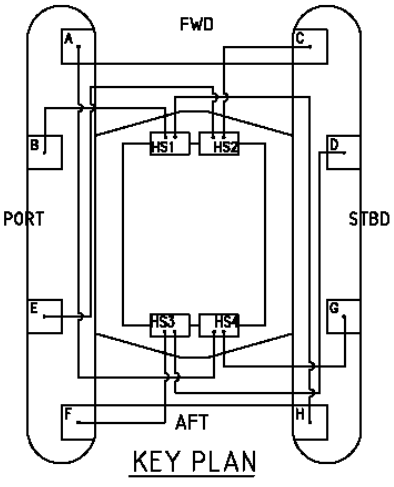


Figure 3-1 No split mode

3.2.3 Operation of Power distribution in “two split”



In case of normal two (2) split power system (HS1-HS2, HS3-HS4 interconnected), the 11 kV SWBD`s of two power stations will be inter-connected by using bustie transfer breakers. The Thrusters are supplied according to the diagonal philosophy. See below figure.

The diagonal DP segregation and the 2 split bus configuration are such that each split power system prevents losing more than one thruster on each corner of the rig in worst single failure case. The alternate two split configuration (HS1-HS3, HS2-HS4 interconnected) is also possible but not considered as normal operation in DP3 mode.

The switchboards may be connected to enable more economic and efficient use of the generators to the extent environmental conditions allowing. With two split it is possible to operate with one, two, three or four generators per split unit depending upon load demand. In general there will be at least one generator running per engine room.

The anticipated operations in this mode are:

- Transit
- Drilling or testing operations during fair weather conditions
- Operation with position mooring

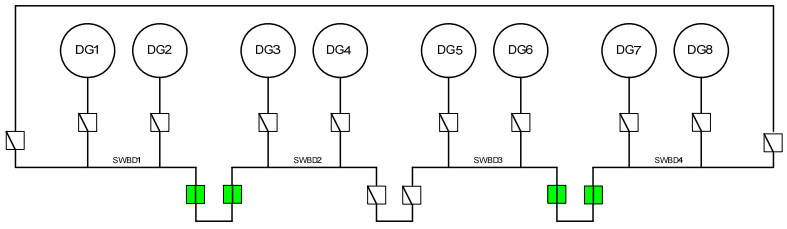


Figure 3-2 Two split operation mode

3.2.4 Operation of Power distribution in 4 splits

During the DP-3 mode of the rig (under harsh weather condition), the power system is divided in four (4) individual units each consisting of two engines connected to one 11 kV Switchboard. Each sub-system caters 25 % capacity of the total power generation capacity installed on rig. Each sub system consists of two (2) generators, one (1) 11 kV main switchboard, two (2) thrusters and associated 690V, 440V & 230V power distribution system equipments (Transformers, MCC and distribution boards).

In order to ensure maximum redundancy all units are operated to act as individual system. There will be one or two generators operating per unit as dictated by the power demand. The anticipated operations in this mode are:

- Drilling or testing operations during harsh weather conditions
- Start up situation (after black out)
- Maintenance operations on the high voltage switch board

In case of DP class 3 each sub system is operated individually. Therefore the worst case failure is the shut down possibility for one unit (i.e. 25% capacity). There is no damage on the other sub systems and 75 % total power will be maintained even if the rig loses one (1) unit due to fire, flooding or any other technical failure

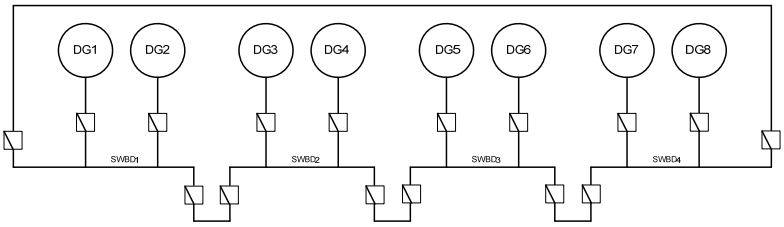


Figure 3-3 Four split mode (Used during DP/POSMOOR operations in harsh weather conditions)

There are Tie breakers on high voltage 11KV, 690V, 440V and 230V low voltage level in order to provide back-up in case of failure of one of the incomers.