

Environmental Emissions Monitoring System

Use of Drill Fluids and Cuttings

This form, Use of Drill Fluids and Cuttings, is a summary of the use of drilling fluids and cuttings resulting from drilling operations offshore.

Drilling Fluids are designated as being Oil Based Muds (OBM) , Synthetic Based Muds (SBM) or Water Based Muds (WBM). OBM and SBM fluids are often collectively known as OBF fluids and, due to their properties, require more details than WBM fluids.

This return should be submitted no later than 28 days after the expiry of the PON15 permit under which the work is authorised.

A separate return is required for each individual well drilled.

Where wells are drilled with one type of mud, then displaced with a second mud (e.g. solids free mud for completion) it is recognised that this second mud won't generate cuttings. To accommodate this, in such circumstances, enter details as normal but use zero's for the start and end depths (as this will ensure that no cuttings volumes are calculated)

Operational Details

Operator	The unique name of the operating company responsible for activity.	Mandatory
Installation	The unique name of the Installation or drilling rig.	Mandatory
Permit	Enter/select the relevant PON15B number under which the work was authorised.	Mandatory
Well Number	Enter the DECC approved number for the well. Format – alphanumeric freetext	Mandatory
Spudded	Enter the date the operation began. Format – Date – YYYY-MM-DD	Mandatory
Completed	Enter the date the well completed Format – Date – YYYY-MM-DD	Mandatory

Well Information

Section	Each section has a uniform hole diameter with a starting depth and a finishing depth. The deeper the section the narrower the diameter. The depth from and depth to must not overlap and be contiguous i.e. the depth to of one section should be equal the depth from of the next section. Each section is uniquely identified by its diameter, depth from and depth to. Where wells are drilled with one type of mud, then displaced with a second mud (e.g. solids free mud for completion) it is recognised that this second mud won't generate cuttings. To accommodate this, in such circumstances, enter details as normal but use zero's for the start and end depths (as this will ensure that no cuttings volumes are calculated)	Mandatory
Well Section Diameter	The diameter of the hole section.	Mandatory

	Unit of measure=inches; No. decimal places=2; Minimum=3.75; Maximum=54.00; Format=#.00	
Start Depth	The depth the hole section starts relative to the drill floor. Should be greater than the hole section depth to (see below).	Mandatory
	Unit of measure=metres; No. decimal places=0; Minimum=0; Maximum=9,999; Format=#,##0	
End Depth	The depth the hole section ends relative to the drill floor. Should be less than the hole section depth from (see above).	Mandatory
	Unit of measure=metres; No. decimal places=0; Minimum=0; Maximum=9,999; Format=#,##0	
Fluid Type	The fluid type used in the section e.g. OBM (Oil Based Mud), WBM (Water Based Mud); or SBM (Synthetic Based Mud). It is highly unlikely that a drilling fluid type will change within a hole section of fixed diameter and therefore only one fluid can be selected for each section.	Mandatory
Fluid System	For OBM and SBM only. The drill fluid system used in this section as specified in the OCNS list. For WBM fluids enter NONE	Mandatory
OBM/SBM Fluid Specific Gravity	Enter the specific gravity of the OBM or SBM base fluid. Mandatory for OBM or SBM fluids but not required for WBM fluids.	Optional
	Unit of measure=specific gravity No. decimal places=2; Minimum=0.00; Maximum=9.99; Format=#.00	
Volume of Base Oil/Synthetic on Fluid	Enter the volume of base, in percentage terms, of base oil or base synthetic that is present in the finished product. Mandatory for OBM or SBM fluids but not required for WBM fluids.	Optional
	Unit of measure=percentage; No. decimal places=2; Minimum=0.00; Maximum=99.99; Format=##.00	

Cuttings Mass Balance

Well Section Diameter	Pre-populated from above	Pre-populated
Start Depth	Pre-populated from above	Pre-populated
End Depth	Pre-populated from above	Pre-populated
Mass of Cuttings Discharged	This will be automatically generated based on data already submitted Enter the mass of cuttings Discharged to Sea.	Calculated Mandatory
	Unit of measure=tonnes; No. decimal places=3; Minimum=0.000; Maximum=10,000.00; Format=##,##0.000	
Base OPF Concentration	Where cuttings generated from the use of OBM or SBM fluids (collectively referred to here as OPF) are discharged to sea it is necessary to enter the concentration of OPF on these cuttings.	Optional
	Unit of measure=g/kg; No. decimal places=2; Minimum=0.00; Maximum=99.99; Format=##.00	
Volume of OPF discharged	This will be automatically calculated in cases where OPF generated cuttings have been discharged to the sea.	Calculated

	Unit of measure=tonnes; No. decimal places=3; Minimum=0.000; Maximum=10,000.000; Format=##,###.000	
Injected	Total weight of cuttings injected.	Mandatory
	Unit of measure=tonnes; No. decimal places=3; Minimum=0.000; Maximum=10,000.000; Format=##,###.000	
Shipped to Shore	The weight of cuttings shipped to shore during drilling.	
	Unit of measure=tonnes; No. decimal places=3; Minimum=0.000; Maximum=10,000.000; Format=##,###.000	Mandatory
Discharged Accidentally or Force Majeur	The weight cuttings discharged (accidental or force majeure) during drilling.	Mandatory
	Unit of measure=tonnes; No. decimal places=3; Minimum=0.000; Maximum=10,000.000; Format=##,###.000	
Accounted for During Operation	Total weight of cuttings accounted for during operation.	Calculated
	Unit of measure=tonnes; Calculation=Discharged + Injected + Shipped To Shore + Discharged accidentally or Force Majeur)	
Mass Balance	This calculation will highlight the balance of cuttings, by comparing the volume of cuttings generated against the volume accounted for operations. Realistically this volume should be zero or close to it.	Calculated
	Unit of measure=tonnes; Calculation=Mass of Cuttings - Accounted for During operation	

OPF Mass Balance

Well Section Diameter	Pre-populated from above	Pre-populated
Start Depth	Pre-populated from above	Pre-populated
End Depth	Pre-populated from above	Pre-populated
Fluid System	Prepopulated from above	Pre-populated
Volume of OPF Used	Enter the volume of OPF base fluid used	Mandatory
	Unit of measure=m3; No. decimal places=3; Minimum=0.000; Maximum=10,000.000; Format=##,###.000	
Mass of OPF Base Used	This will generate the mass of the OPF base fluid used, taking previously submitted data to make the calculation.	Calculated
	Unit of measure=tonnes; No. decimal places=3; Minimum=0.000; Maximum=10,000.000; Format=##,###.000	
Backloaded to Shore in Whole Mud	The weight of OPF drilling fluid backloaded to shore resulting from the drilling operations.	Mandatory
	Unit of measure=tonnes No. decimal places=3; Minimum=0.000; Maximum=10,000.000; Format=##,###.000	
Retained Onboard	The weight of drilling fluid retained on board following the completion of the drilling operations.	Mandatory
	Unit of measure=tonnes; No. decimal places=3; Minimum=0.000; Maximum=10,000.000;	

	Format=##,###.000	
Left In Well (including downhole losses)	The weight of drilling fluid left in the well or lost to the formation (including seepage) during the drilling operations. Unit of measure=tonnes; No. decimal places=3; Minimum=0.000; Maximum=10,000.000; Format=##,###.000	Mandatory
Discharged with Cuttings	The weight of drilling fluid discharged with cuttings. Unit of measure=tonnes; No. decimal places=3; Minimum=0.000; Maximum=10,000.000; Format=##,###.000	Mandatory
Injected	The weight of drilling fluid injected during drilling. Unit of measure=; No. decimal places=3; Minimum=0.000; Maximum=10,000.000; Format=##,###.000	Mandatory
Shipped to Shore (With Cuttings)	The weight of drilling fluid shipped to shore with cuttings during drilling. Unit of measure=tonnes; No. decimal places=3; Minimum=0.000; Maximum=10,000.000; Format=##,###.000	Mandatory
Shipped to Shore (from recovery process)	The weight of drilling fluid shipped to shore from the recovery process. Unit of measure=tonnes; No. decimal places=3; Minimum=0.000; Maximum=10,000.000; Format=##,###.000	Mandatory
Shipped to Shore (with slops)	The weight of drilling fluid shipped to shore from the recovery process. Unit of measure=tonnes; No. decimal places=3; Minimum=0.000; Maximum=10,000.000; Format=##,###.000	Mandatory
Discharged Accidentally or Force Majeure	The weight of OPF fluid discharged (accidental or force majeure) during drilling. A corresponding spill notification should have been submitted to DECC in such circumstances Unit of measure=tonnes; No. decimal places=3; Minimum=0.000; Maximum=10,000.000; Format=##,###.000	Mandatory
Accounted for During Operation	Total weight of drilling fluid accounted for during operation. Unit of measure=tonnes; Calculation=Backloaded to shore in whole Mud + Retained On Board + Left In Well (inc downhole losses) + Discharged with cuttings + Injected + Shipped To Shore (With Cuttings) + Shipped To Shore (from recovery process) + Shipped to Shore (from slops) + Discharged Accidentally or Force Majeure	Calculated
Mass Balance	This calculation will highlight the balance of OPF Fluid, by comparing the volume of fluids generated against the volume accounted for operations. Realistically this volume should be zero or close to it. Unit of measure=tonnes; Calculation=Mass of OPF Base Fluid Used - Accounted for During operation	Calculated