Falkland Islands Government

Department of Mineral Resources

Petroleum Operations Notice 7

Well Numbering System

Revised May 2012

CONTENTS:

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1. BACKGROUND

The Falkland Islands Government's Department of Mineral Resources (DoMR) well registration numbering system is a simple code system which provides an unambiguous reference which must be used in correspondence, for cross reference between computer databases and in other information and filing systems.

The Petroleum Production Reporting System (PPRS) Number is derived from the well number elements of the DoMR well number.

All operators are reminded that the full DoMR well number must be quoted on all returns, well logs, reports and correspondence related to a well. Operators development well

numbering systems should be reviewed with the DoMR at an early stage in development programme planning.

Throughout this notice the term 'platform' should be taken to include subsea templates and sites where development wells are clustered in close proximity e.g. around a gathering manifold.

2. ASSIGNMENT OF WELL NUMBERS

Drilling applications are received by the DoMR from the operator. Basic well details are input onto the DoMR wells database. A consent letter is issued instructing operators to inform DoMR by fax or email immediately (ie within two hours) a well spuds. At this point the DoMR database automatically assigns the next sequential number. The DoMR will inform the operator and the HSE of the well number within 1 working day of receipt of the well spud fax.

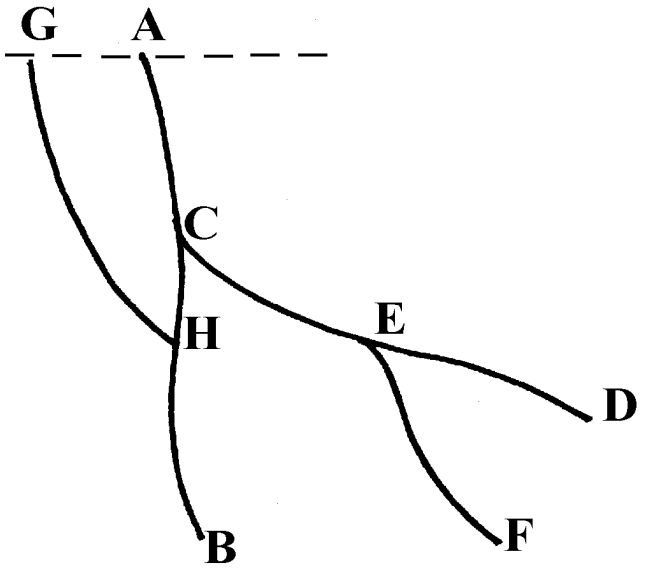
3. WHAT IS A WELL ?

DoMR defines a well to be a borehole drilled into the earth from a single surface or subsurface location to a single subsurface location. If the surface location changes but the target location stays the same then a new well is regarded as a RESPUD of the first well. If the target location changes but the surface location stays the same the new well is called a geological SIDETRACK. If a sidetrack is made to bypass an obstruction while the surface and target locations remain the same this is called a mechanical SIDETRACK. A well may be drilled intentionally into an existing well.

Shallow boreholes drilled for the purpose of substrate investigation (i.e. not drilled primarily for the searching, boring or getting of petroleum) or rig positioning will not be included in the DoMR well numbering scheme. These will not be given a Drilling Sequence Number but will be identified with the mnemonic EB - Exploratory Borehole - following the relevant Quad and Block number, to avoid confusion with other wells.

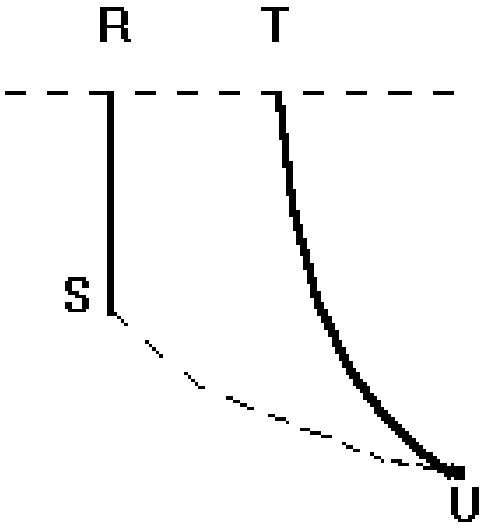
The following examples illustrate how the concept of a wellbore is incorporated.

Example 1



There are four wells illustrated:
AB is the original well
19/07- 2
CD is the first sidetrack well
19/07- 2Z
EF is the further sidetrack well
19/07- 2Y
GH is a relief (or collision) well
19/07- 3

Example 2



RS, say 19/08- 1, was being drilled to target U

TU, 19/08- 1A, is the RESPUD drilled to the same target.

4. WELL REGISTRATION NUMBER

The DoMR well number comprises seven components (a)-(g), which uniquely define a well.

e.g. 211/30b-A21Z
(This is a sidetrack of well 21 on platform A in part block 211/30b).

Country	Quad		Block		Well No
	211	/	30	b -	A 21 Z
(a)	(b)	/	(c)	(d) -	(e) (f) (g)

The number is initially established when drilling commences towards a target by insertion of a number in component (f), replacing the target reference letter(s).

5. DEFINITION OF COMPONENTS OF WELL REGISTRATION NUMBER

Component		Definition
Country	(a)	Two character code for the country in whose waters the well is drilled. Falkland Islands offshore wells have a blank in this column.
Quadrant	(b)	The number, or letter, of the quadrant in which the well is drilled. FI quadrants are areas enclosed by one degree of latitude and longitude. Quadrants are numberd up to 2 digits, right justified with no leading zero. The number designation for the quadrant can be obtained from the Map at paragraph 8.
Block	(c)	The number of the block within the quadrant in which the well is drilled. Each FI quadrant is divided into 30 blocks measuring 12 minutes of longitude by 10 minutes of latitude. The number has 2 digits including a leading zero
Block Suffix	(d)	This component is used if the block is subdivided, usually after partial surrender, otherwise it is omitted. The retained part has the lower case suffix 'a' and the part(s) surrendered, which may be re-licensed, are given lower case suffixes 'b', 'c' etc. (See Note 7(a)).
'Platform' or Subsea Cluster Designation	(e)	For wells drilled from a fixed or floating platform or through a subsea template one capital letter should be used for platform designation, otherwise left blank. The letter S should not be used to avoid confusion with subsea wells in the PPRS. (See note 7(b)).
Well Sequence	(f)	The Drilling Sequence Number (DSN) is the consecutive chronological number of the well within the block or from the 'platform', consisting of (drilling sequence up to two digits with no leading zero. The chronological sequence number) number will be allocated to the well only after it has commenced drilling to a specific bottom hole target location, as follows : (i) exploration, appraisal or single satellite subsea development wells will normally be numbered at the time a well is spudded i.e. when drilling commences from surface. (ii) wells forming part of a multiwell development, in which

casings are batch set prior to finalising the slot/target allocation, will be numbered only after drilling has commenced to a specific target location, normally at the time of drilling out of the 20", or equivalent, surface casing shoe.

Operators are required to advise the DoMR by fax immediately drilling has commenced to a specific target location. In the case of most Exploration and Appraisal wells, this fax should be sent within two hours of spudding in to the sea-bed. For most Development wells a fax should be sent within two hours of spudding out of preset casing with the intention of drilling to the target. (See Notes 7(c) to (j)).

Well Suffix

(g) (i) Re-spud If a well is re-spudded for any reason it is distinguished by an upper case character 'A', 'B', 'C', etc. in this component (not applicable to 'platform' development). A well is designated to be a respud when the original attempt to drill the well fails for any reason at or near the surface and another well must be started at a nearby surface location to drill to the same target. First respud has a capital A, second B, and so on.

(ii) Sidetrack If a well is sidetracked and the abandoned part of the hole has significant data (i.e. logs, MWD and/or core) the sidetrack is distinguished by 'Z', 'Y', 'X', etc. in this column. If a sidetrack is for mechanical reasons only, and the abandoned part of the hole does not have significant data (i.e. logs, MWD and/or core) and is not through any known hydrocarbon bearing interval, then no suffix is required.

Re-spudded wells which are then sidetracked have their 'A', 'B', 'C' etc. replaced by 'Z', 'Y', 'X', etc.

Examples:

1st attempt 211/03b- 21
Respud 211/03b- 21A
Mechanical sidetrack 1 (logged) 211/03b- 21Z
Mechanical sidetrack 2 (cored) 211/03b- 21Y
Geological sidetrack 211/03b- 21X

(note there are four separate wells here) Multilateral wells will also be numbered in this way, with a suffix for each lateral. Allocation of suffixes should be agreed with the DoMR (See Notes 7(c) to 7(f)).

6. EXAMPLES

Well Registration Number	Description
10/01- 2	second well drilled in block 10/01
3/14a- 17	seventeenth well on a subdivided block
2/05-H1	Heather platform well, first well drilled from platform
2/05-H3Z	Heather platform well redrilled to a new bottom hole location

211/28- 1A	re-spudded well
15/16- 3Z	sidetracked well
30/17b- 3	third well in block 30/17 in re-licensed part block 30/17b
30/17a- 4	fourth well in block 30/17 in retained part block 30/17a

7. NOTES ON APPLICATION OF SYSTEM

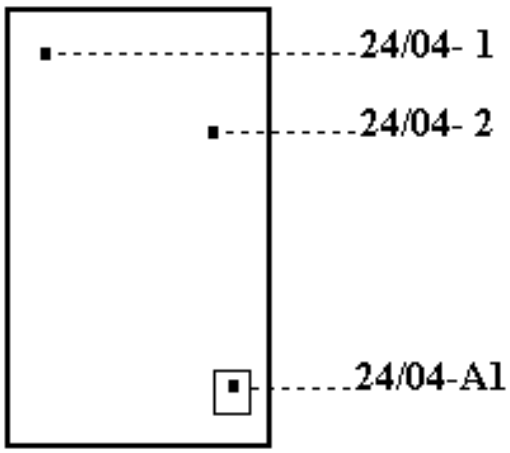
(a) RELINQUISHMENT OF PART BLOCKS - EFFECT ON WELL NUMBERS

Wells within a block will continue to be numbered consecutively even after the block has been subdivided for licensing purposes, (e.g. following partial surrender and subsequent relicensing). After subdivision, however, the block subdivision suffix (e.g. 24/04b) must be used.
The first well drilled from a platform will take the suffix applicable to the block or part block in which the platform resides when drilling commences. All wells subsequently drilled from that platform assume the same block suffix as the first well. Once drilling has commenced on a platform, relinquishment of part of a block will not require a change in platform wells numbers i.e. there will be no need to add a block suffix to the well registration number for existing or future wells drilled from that platform.

The following diagrams illustrate this:

Two exploration or appraisal wells 24/04- 1 and 24/04- 2 have been drilled in block 24/04 and one well, 24/04-A1 has been drilled from platform A.

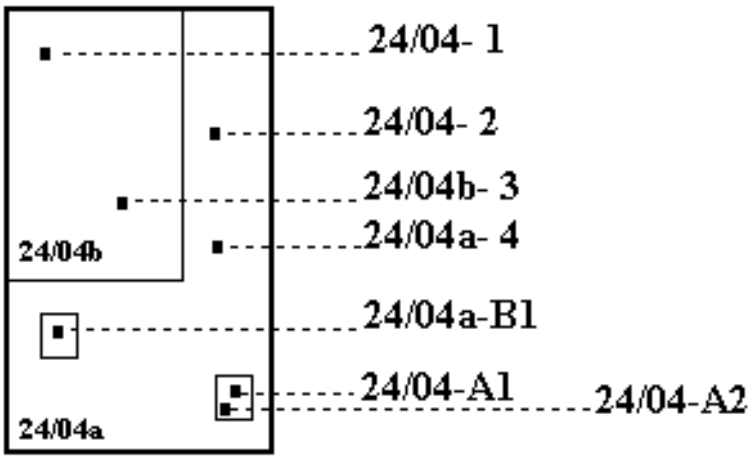
Example 3



Following relinquishment block 24/04 is subdivided into 24/04a and 24/04b. The next exploration or appraisal well to be drilled in block 24/04 is in relicensed sub-

block 24/04b and is numbered 24/04b- 3; the next one drilled in block 24/04 is in retained sub-block 24/04a and is numbered 24/04a- 4.
The next development well drilled from platform A is numbered 24/04-A2 because the first well had been spudded prior to relinquishment.
If a second platform B was to be located in sub-block 24/04a wells would be numbered 24/04a-B1 and so on.

Example 4



(b) EXTENSION OF 'PLATFORM' DESIGNATION TO SUBSEA TEMPLATES ETC.

All subsea structures or templates through which two or more development wells may be drilled will be given a 'platform' designation letter (component e) and wells will be numbered (component f) like platform wells. A platform or other installation set above the template will adopt the template designation letter. Clusters of subsea development wells will be treated in the same way as templates.

(c) DESIGNATION OF WELLS PRIOR TO SPUDDING-IN

Wells should not be designated by drilling sequence number before spudding-in and drilling has commenced to a specific target location, see 5(f). Reference should be made to an identifying letter (or target location letter) for non-platform wells and for platform wells an identifying letter (following the platform letter) and slot number. A maximum of 3 characters can be used for the identifying letter and 4 for the slot number. Conductors and surface casing strings set, or planned to be set, in wells before drilling has commenced to a specific target location should be identified by the slot number following the platform or subsea cluster designation.
examples.

211/21- A	non platform well to target location A
211/21-N, target B, slot 17	planned well from N platform to target location B through slot 17

211/21-N, slot 17 surface casing on N platorm at slot 17.

(d) DESIGNATION OF DEVELOPMENT WELLS DRILLED OUT OF SEQUENCE

During development drilling batch setting of conductors may be carried out. Often reservoir targets are not allocated at this stage in which case the wells should continue to be referred to by their slot numbers. Within two hours of the well drilling out of the conductor with the intention of proceeding to the reservoir target a fax must be sent to the DoMR. The well will then receive its unique sequential well number from the DoMR.

(e) CHANGES IN WELL NUMBER AFTER RE-SPUDDING

If, after spudding-in, an exploration, appraisal or single satellite development well is abandoned on mechanical grounds and the rig moved for the purpose of drilling what is effectively the same well, then it can be considered in one of two ways subject to prior agreement by the DoMR.

(1) Add a suffix to indicate a second attempt to drill the same well (24/04- 2A).

(2) Call the mechanically failed attempt a well, because it has reached a sufficient depth and acquired geological data which justifies so doing. In this case the second attempt is a new well and in our example would be 24/04- 3 (unless 24/04- 3 has already spudded elsewhere when it would be 24/04- 4).

In all cases an application for consent to abandon this existing hole and drill from the new location is required.

(f) CHANGES IN WELL NUMBER AFTER RE-DRILLING

When a well has reached its target horizon and is then drilled to a new bottom hole location, it will fall into one of the following categories:

(1) The old well has production (including EWT but excluding DST) or injection history, or

(2) The old well has no production or injection history.

If (1) above applies, then the new well is termed a re-drill and re-numbered with the next consecutive chronological number. The effective date to determine the new number (spud date) will be the date the well drilled out of the existing well bore.

If (2) above applies, then the well is considered a sidetrack and a suffix (starting from the end of the alphabet) should be added to the well number for the sidetracked well (24/04-A6Z) to aid log identification.

This rule (2) also applies to pilot wells and their subsequent horizontal sidetracks, including multilaterals, and to a well re-entered to deepen to a new target following

suspension.

In all cases an application for consent to abandon the existing section of the hole and drill to the new location is required.

(g) WELL NUMBERING - LICENCE OBLIGATIONS

No aspect of Notes (e) and (f) implies acceptance of the wells as more than one well for licence obligation purposes.

(h) WELL NUMBERING - WELLS TIED INTO PLATFORMS

Wells drilled from mobile rigs and subsequently completed and tied into a 'platform' (e.g. single subsea completions) retain their original well registration number. (Also see 7(l) below).

(j) REFERENCE TO WELLS IN REPORTS TO AND CORRESPONDENCE WITH THE DOMR (except PPRS - Note (k))

Whenever a well, well notification, well record, report, core or sample has to be identified to the DoMR, BGS or HSE it must be referred to or labelled in the following manner:-

(1) Before allocation of the sequential well registration number (before spudding)

(i) Exploration, appraisal and single subsea development wells: Quadrant/Block - Identifying letter(s) of target e.g. 107/01- G

(ii) Wells drilled from platforms or subsea clusters: Quadrant/Block - Platform letter, Identifying letter(s) (Slot No) e.g. 23/05-H, FE (Slot No 15)

(2) After allocation of sequential well registration number

(i) Exploration, appraisal and single subsea development wells: Well Registration Number e.g. 107/01- 2

(ii) Wells drilled from 'platforms or subsea clusters': Well Registration Number (Slot Number) e.g. 23/05-H1 (Slot No 15)

NB Exploration or appraisal wells drilled from a platform or subsea cluster will be numbered as in example 2(ii) above.

(k) PETROLEUM PRODUCTION REPORTING SYSTEM (PPRS) - WELL NUMBER DERIVATION FROM REGISTRATION NUMBER

(1) The PPRS number for a conventional platform or template well will be derived from elements (e) and (f) in the DoMR Registration Number. In the examples shown the PPRS number for Well 2/05-H1 would be H01. However unlike the Drilling Sequence Number the first nine wells from any 'platform' sequence should contain a leading zero.

(2) In the case of single subsea completions connected to a nearby platform the PPRS number will be derived by adding the platform letter and an 'S' to element (f). If Well 15/16- 3Z was a single subsea completion connected to a platform whose designation letter was R then the PPRS No for that well should be RS03.

(3) A possible ambiguity could arise when a subsea development well is drilled in a different block to the 'platform' to which it is subsequently connected. In this case the block number will be inserted after the letters and before the well number so that it is now a 6 digit system e.g. MS0703 and MS1203. The system depends on the full 6 digits being used to avoid ambiguity, hence well 3 or block 7 must be written 03 or 07. (for Magnus wells in block 211/07 and 211/12.)

(l) CHANGE OF WELL NUMBER (SYNONYMOUS WELL NUMBER)

Normally a well number cannot be changed after it has been used for identifying well records. In exceptional circumstances however, e.g. when a 'platform or subsea cluster' is placed over a pre-existing single well numbered in the block sequence, an operator may apply to have the well renumbered to fit into a 'platform' site sequence. For example to make the existing well A1 if 'A' is chosen for the 'platform' site letter. Subsequent wells drilled on the 'platform or subsea cluster' will then be numbered A2, A3 etc. The operator must discuss potential re-numbering of wells at the earliest opportunity during development planning. Reference must be made in all communications to both the original and synonymous well number eg 10/07- 2, A1