CLAIMS

1. A method for predefining elements of a cemented wellbore, comprising:

selecting a fluid from a key comprising multiple fluids using a graphical user interface;

dragging the fluid from the key to one of a plurality of zones within a schematic view of a wellbore and a tubing string using the graphical user interface; and

filling the one of the plurality of zones with the fluid or filling half of the one of the plurality of zones with the fluid using a computer processor.

2. The method of claim 1, further comprising:

selecting a top plug from the key using the graphical user interface; and

dragging the top plug inside the tubing string above a float collar in the schematic view to any position between two of the plurality of zones or removing the top plug from the tubing string using the graphical user interface.

3. The method of claim 1, wherein each of the plurality of zones is assigned or unassigned.

4. The method of claim 3, wherein each assigned zone is filled with at least one of the multiple fluids and each unassigned zone is empty.

5. The method of claim 1, wherein the multiple fluids are coded to distinguish each

fluid by type and density.

6. The method of claim 1, wherein the plurality of zones comprises:

a first zone defined as an area within the tubing string from a top of the tubing string to a float collar;

a second zone defined as an area within the tubing string below the float collar and within an annulus between the tubing string, the wellbore and casing up to a predetermined top of cement; and

a third zone defined as an area within another annulus between the tubing string and the casing from the top of cement to a top of the another annulus.

7. The method of claim 1, further comprising repeating each step in claim 1 until each of the plurality of zones is filled with at least one of the multiple fluids.

8. The method of claim 4, further comprising:

filling the one of the plurality of zones with the fluid;

dragging another fluid from an assigned zone in the schematic view using the graphical user interface, wherein the another fluid is removed from the assigned zone; and

dragging the another fluid to another one of the plurality of zones.

9. The method of claim 4, further comprising:

filling half of the one of the plurality of zones with the fluid;

copying another fluid from an assigned zone in the schematic view using the graphical user interface, wherein the fluid copied from the assigned zone remains in the assigned zone;

dragging the fluid copied from the assigned zone to an unassigned zone using the graphical user interface; and

filling the unassigned zone with the fluid copied from the assigned zone.

10. A non-transitory program carrier device tangibly carrying computer executable instructions for predefining elements of a cemented wellbore, the instructions being executable to implement:

selecting a fluid from a key comprising multiple fluids using a graphical user interface;

dragging the fluid from the key to one of a plurality of zones within a schematic view of a wellbore and a tubing string using the graphical user interface; and

filling the one of the plurality of zones with the fluid or filling half of the one of the plurality of zones with the fluid.

11. The program carrier device of claim 10, further comprising:

selecting a top plug from the key using the graphical user interface; and

dragging the top plug inside the tubing string above a float collar in the schematic view to any position between two of the plurality of zones or removing the top plug from the tubing string using the graphical user interface.

12. The program carrier device of claim 10, wherein each of the plurality of zones is assigned or unassigned.

13. The program carrier device of claim 12, wherein each assigned zone is filled with at least one of the multiple fluids and each unassigned zone is empty.

14. The program carrier device of claim 10, wherein the multiple fluids are coded to distinguish each fluid by type and density.

15. The program carrier device of claim 10, wherein the plurality of zones comprises:

a first zone defined as an area within the tubing string from a top of the tubing string to a float collar;

a second zone defined as an area within the tubing string below the float collar and within an annulus between the tubing string, the wellbore and casing up to a predetermined top of cement; and

a third zone defined as an area within another annulus between the tubing string and the casing from the top of cement to a top of the another annulus.

16. The program carrier device of claim 10, further comprising repeating each step in claim 10 until each of the plurality of zones is filled with at least one of the multiple fluids.

17. The program carrier device of claim 13, further comprising:

filling the one of the plurality of zones with the fluid;

dragging another fluid from an assigned zone in the schematic view using the graphical user interface, wherein the another fluid is removed from the assigned zone; and

dragging the another fluid to another one of the plurality of zones.

18. The program carrier device of claim 13, further comprising:

filling half of the one of the plurality of zones with the fluid;

copying another fluid from an assigned zone in the schematic view using the graphical user interface, wherein the fluid copied from the assigned zone remains in the assigned zone;

dragging the fluid copied from the assigned zone to an unassigned zone using the graphical user interface; and

filling the unassigned zone with the fluid copied from the assigned zone.

19. A non-transitory program carrier device for carrying a data structure, the data structure, comprising:

a first data field comprising a schematic view of a wellbore and a tubing string, wherein the schematic view comprises:

a first zone defined as an area within the tubing string from a top of the

tubing string to a float collar;

a second zone defined as an area within the tubing string below the float collar and within an annulus between the tubing string, the wellbore and casing up to a predetermined top of cement; and

a third zone defined as an area within another annulus between the tubing string and the casing from the top of cement to a top of the another annulus; and

a second data field comprising a key with multiple fluids, wherein the multiple fluids are coded to distinguish each fluid by type and density.

20. The program carrier device of claim 19, wherein the first data field is interactive with the second data field to fill each zone in the schematic view with at least one of the multiple fluids.

CLAIMS

1. A method for predefining elements of a cemented wellbore, comprising:

selecting a fluid from a key comprising multiple fluids using a graphical user interface;

dragging the fluid from the key to one of a plurality of zones within a schematic view of a wellbore and a tubing string using the graphical user interface; and

filling the one of the plurality of zones with the fluid or filling half of the one of the plurality of zones with the fluid using a computer processor.

2. The method of claim 1, further comprising:

selecting a top plug from the key using the graphical user interface; and

dragging the top plug inside the tubing string above a float collar in the schematic view to any position between two of the plurality of zones or removing the top plug from the tubing string using the graphical user interface.

3. The method of claim 1 or claim 2, wherein each of the plurality of zones is assigned or unassigned.

4. The method of claim 3, wherein each assigned zone is filled with at least one of the multiple fluids and each unassigned zone is empty.

5. The method of any one of claims 1 to 4, wherein the multiple fluids are coded to distinguish each fluid by type and density.

6. The method of any one of claims 1 to 5, wherein the plurality of zones comprises:

a first zone defined as an area within the tubing string from a top of the tubing string to a float collar;

a second zone defined as an area within the tubing string below the float collar and within an annulus between the tubing string, the wellbore and casing up to a predetermined top of cement; and

a third zone defined as an area within another annulus between the tubing string and the casing from the top of cement to a top of the another annulus.

7. The method of any one of claims 1 to 6, further comprising repeating each selecting, dragging and filling step until each of the plurality of zones is filled with at least one of the multiple fluids.

8. The method of claim 4, further comprising:

filling the one of the plurality of zones with the fluid;

dragging another fluid from an assigned zone in the schematic view using the graphical user interface, wherein the another fluid is removed from the assigned zone; and

dragging the another fluid to another one of the plurality of zones.

9. The method of claim 4, further comprising:

filling half of the one of the plurality of zones with the fluid;

copying another fluid from an assigned zone in the schematic view using the graphical user interface, wherein the fluid copied from the assigned zone remains in the assigned zone;

dragging the fluid copied from the assigned zone to an unassigned zone using the graphical user interface; and

filling the unassigned zone with the fluid copied from the assigned zone.

10. A non-transitory program carrier device tangibly carrying computer executable instructions for predefining elements of a cemented wellbore, the instructions being executable to implement:

selecting a fluid from a key comprising multiple fluids using a graphical user interface;

dragging the fluid from the key to one of a plurality of zones within a schematic view of a wellbore and a tubing string using the graphical user interface; and

filling the one of the plurality of zones with the fluid or filling half of the one of the plurality of zones with the fluid.

11. The program carrier device of claim 10, further comprising:

selecting a top plug from the key using the graphical user interface; and

dragging the top plug inside the tubing string above a float collar in the schematic view to any position between two of the plurality of zones or removing the top plug from the tubing string using the graphical user interface.

12. The program carrier device of claim 10 or 11, wherein each of the plurality of zones is assigned or unassigned.

13. The program carrier device of claim 12, wherein each assigned zone is filled with at least one of the multiple fluids and each unassigned zone is empty.

14. The program carrier device of any one of claims 10 to 13, wherein the multiple fluids are coded to distinguish each fluid by type and density.

15. The program carrier device of any one of claims 10 to 14, wherein the plurality of zones comprises:

a first zone defined as an area within the tubing string from a top of the tubing string to a float collar;

a second zone defined as an area within the tubing string below the float collar and within an annulus between the tubing string, the wellbore and casing up to a predetermined top of cement; and

a third zone defined as an area within another annulus between the tubing string and the casing from the top of cement to a top of the another annulus.

16. The program carrier device of any one of claims 10 to 15, further comprising repeating the selecting, dragging and filling until each of the plurality of zones is filled with at least one of the multiple fluids.

17. The program carrier device of claim 13, further comprising:

filling the one of the plurality of zones with the fluid;

dragging another fluid from an assigned zone in the schematic view using the graphical user interface, wherein the another fluid is removed from the assigned zone; and

dragging the another fluid to another one of the plurality of zones.

18. The program carrier device of claim 13, further comprising:

filling half of the one of the plurality of zones with the fluid;

copying another fluid from an assigned zone in the schematic view using the graphical user interface, wherein the fluid copied from the assigned zone remains in the assigned zone;

dragging the fluid copied from the assigned zone to an unassigned zone using the graphical user interface; and

filling the unassigned zone with the fluid copied from the assigned zone.

19. A non-transitory program carrier device for carrying a data structure, the data structure, comprising:

a first data field comprising a schematic view of a wellbore and a tubing string, wherein the schematic view comprises:

a first zone defined as an area within the tubing string from a top of the tubing string to a float collar;

a second zone defined as an area within the tubing string below the float collar and within an annulus between the tubing string, the wellbore and casing up to a predetermined top of cement; and

a third zone defined as an area within another annulus between the tubing string and the casing from the top of cement to a top of the another annulus; and

a second data field comprising a key with multiple fluids, wherein the multiple fluids are coded to distinguish each fluid by type and density.

20. The program carrier device of claim 19, wherein the first data field is interactive with the second data field to fill each zone in the schematic view with at least one of the multiple fluids.