The invention claimed is:

1. A fluid flow control apparatus for use in an oilfield tubular positioned in a wellbore extending through a subterranean formation, the oilfield tubular for flowing fluid therethrough, the fluid having a density which changes over time, the apparatus comprising:

a tool housing;

a valve assembly positioned in the tool housing and having a valve housing with at least one inlet and at least one outlet; and

a rotatable fluid diverter positioned in the tool housing and adjacent the exterior of the valve housing, the fluid diverter rotated about a longitudinal axis of the fluid diverter by change in the fluid diverter buoyancy in response to change in the fluid density, the fluid diverter rotatable to restrict fluid flow through at least one valve inlet in response to change in the fluid density,

wherein the fluid diverter rotates to a plurality

of rotational angles, and wherein restriction of the fluid flow is related to the

rotational angle of the fluid diverter; and

further comprising a second valve assembly

having a second valve housing, each valve housing having at least one inlet and at

least one outlet, the fluid diverter in the closed position operable to restrict flow into

inlets of both of the valve assemblies.

2. The apparatus as in claim 1 wherein the fluid diverter is of a preselected

density and is buoyant in a fluid of a preselected density.

3. The apparatus as in claim 1 wherein the fluid diverter is movable between a first and a second position, and wherein the fluid diverter is biased towards a first position by a biasing member.

4. The apparatus as in claim 3 wherein the biasing member is a counterweight.

5. The apparatus as in claim 4 wherein the counterweight has a density different from the density of the fluid diverter.

6. The apparatus as in claim 5 wherein the counterweight is operably connected to the fluid diverter.

7. The apparatus as in claim 3 wherein the fluid diverter has a density greater than the fluid density during operation of the apparatus, the biasing mechanism offsetting the diverter density and allowing the diverter to be actuated by density change in the fluid.

~~8. The apparatus as in claim 1 wherein the fluid diverter comprises a second valve assembly, wherein the diverter arm is operable to restrict flow through an inlet of a valve assembly.~~

~~9. The apparatus as in claim 1 wherein the at least one inlet of the valve assembly comprises a first inlet and a second inlet, and wherein the fluid diverter rotates between a first position in which the fluid diverter restricts fluid flow into the first inlet and second position in which the fluid diverter restricts fluid flow into the second inlet.~~

~~10. The apparatus as in claim 1 wherein the fluid diverter rotates to a plurality of rotational angles, and wherein restriction of the fluid flow is related to the rotational angle of the fluid diverter.~~

~~11. The apparatus as in claim 10 further comprising a second valve assembly having a second valve housing, each valve housing having at least one inlet and at least one outlet, the fluid diverter in the closed position operable to restrict flow into inlets of both of the valve assemblies.~~

~~12~~ 8. The apparatus as in claim 1 further comprising a self-orienting valve assembly which is weighted for orienting the valve assembly in the wellbore.

~~13~~ 9. The apparatus as in claim ~~12~~ 8 wherein the self-orienting valve assembly utilizes gravity to orient the valve assembly.

~~14~~ 10. The apparatus as in claim ~~12~~ 8 further comprising a sealing agent to maintain the valve assembly in an orientation.

~~15~~ 11. The apparatus as in claim ~~13~~ 10 wherein the sealing agent comprises a swellable elastomer.

~~16~~ 12. The apparatus as in claim 1, further comprising an inflow control device, and wherein the valve inlet is in fluid communication with the inflow control device.

~~17. The apparatus as in claim 1 wherein the valve assembly further comprises spaced apart first and second inlets, and wherein the diverter is operable to change the fluid flow ratio between the first and second inlets in response to fluid density change.~~

~~18. The apparatus as in claim 17 wherein the change in fluid flow ratio is~~

operable to actuate a valve member in the valve assembly.

19. The apparatus as in claim 18 wherein the valve assembly further comprises a valve chamber in fluid communication with the valve inlets and valve outlet, the valve chamber housing the a valve member, the valve member movable between a closed position wherein fluid flow through the valve outlet is restricted and an open position wherein fluid flow through the valve outlet is less restricted.

20. The apparatus as in claim 19 wherein the valve member is a pivotable valve arm having one end proximate the valve outlet and operable to restrict flow through the outlet.

21. The apparatus as in claim 18 wherein the valve assembly further comprises venturi pressure converter.

22. A fluid flow control apparatus for use in an oilfield tubular positioned in a wellbore extending through a subterranean formation, the oilfield tubular for flowing fluid therethrough, the fluid having a density, the apparatus comprising:

a fluid diverter rotationally movable about a longitudinal rotational axis of the fluid diverter in response to changes in the density of the fluid, wherein movement of the fluid diverter changes a fluid flow path through the apparatus; and

a valve assembly positioned adjacent the fluid diverter for restricting fluid flow through the valve assembly, the valve assembly having an open and a closed position, and wherein the position of the valve assembly changes in response to changes to the fluid flow path.

~~23. The apparatus as in claim 22 wherein the fluid diverter is of a preselected density and is buoyant in a fluid of a preselected density.~~

~~24. The apparatus as in claim 22 wherein the fluid diverter is biased towards a first position by a biasing member.~~

~~25. The apparatus as in claim 24 wherein the biasing member is a counterweight.~~

~~26. The apparatus as in claim 25 wherein the counterweight has a density different from the density of the fluid diverter.~~

~~27. The apparatus as in claim 24 wherein the fluid diverter has a density greater than the fluid density during operation of the apparatus, the biasing mechanism offsetting the diverter density and allowing the diverter to be rotated by density change in the fluid.~~

~~28. The apparatus as in claim 22 wherein the apparatus further comprises a housing, the fluid diverter movably mounted in the housing, the fluid flow path defined by fluid flow along the housing and adjacent the fluid diverter.~~

~~29. The apparatus as in claim 28 wherein the valve assembly comprises at least one inlet and at least one outlet, and wherein the fluid flow path is defined in part by the at least one inlet and outlet.~~

~~30. The apparatus as in claim 28 wherein the fluid diverter is movable from a first position adjacent a first valve assembly inlet and a second position adjacent a second valve assembly inlet.~~