CLAIMS

What is claimed is:

1. A system for use in a well, comprising:

a sand control system having a screen assembly sized for deployment in a wellbore, the screen assembly comprising:

a base pipe;

a filter media; and

an inflow control device positioned to control inflow of fluid to an interior of the base pipe after filtering of the fluid via the filter media; and

a dehydration system having a dehydration tube extending along the screen assembly externally of the filter media, the dehydration tube having a plurality of openings sized to filter gravel from inflowing gravel packing carrier fluid, the dehydration tube being in fluid communication with the interior of the base pipe independently of the inflow control device.

2. The system as recited in claim 1, wherein the dehydration system further comprises an outlet operatively engaged with the base pipe at a base pipe opening to direct the gravel packing carrier fluid from an interior of the dehydration tube to an interior of the base pipe.

3. The system as recited in claim 1, wherein the sand control system comprises a plurality of screen assemblies.

4. The system as recited in claim 3, wherein the dehydration tubes of adjacent screen assemblies are connected via jumper tubes.

5. The system as recited in claim 1, wherein the dehydration system further comprises a flow control mechanism configured to control flow of production fluid into the interior of the base pipe.

6. The system as recited in claim 5, wherein the flow control mechanism comprises a sliding sleeve.

7. The system as recited in claim 5, wherein the flow control mechanism comprises a swellable material.

8. The system as recited in claim 5, wherein the flow control mechanism comprises a valve.

9. The system as recited in claim 5, wherein the flow control mechanism comprises a spring biased plug.

10. The system as recited in claim 1, wherein the dehydration system further comprises a filter placed along a flow path extending through the interior of the dehydration tube to the interior of the base pipe.

11. The system as recited in claim 1, wherein the dehydration system further comprises a plurality of separate dehydration tubes.

12. The system as recited in claim 1, wherein the dehydration tube is in fluid communication with the interior of the base pipe via a plurality of base pipe openings.

13. The system as recited in claim 11, further comprising a plurality of flow control mechanisms deployed along the dehydration tubes to control flow through individual base pipe openings.

14. The system as recited in claim 1, wherein the dehydration system directs fluid flow to an interior of the base pipe via a leak-off screen assembly.

15. A method for use in a well, comprising:

pumping a gravel slurry into a wellbore and down to an annulus surrounding a sand control system having at least one dehydration tube positioned externally of filter media associated with a plurality of sand control assemblies;

using the at least one dehydration tube to separate gravel from a carrier fluid of the gravel slurry and to direct the carrier fluid along a flow path routed through the interior of the dehydration tube and to an interior of a base pipe of at least one sand control assembly of the plurality of sand control assemblies;

providing a flow control mechanism along the dehydration tube; and

employing an inflow control device to control fluid flow from the annulus surrounding the sand control system to the interior of the base pipe separately from the flow path through the interior of the dehydration tube and to the interior of the base pipe.

16. The method as recited in claim 15, wherein providing comprises providing a plurality of flow control mechanisms along the dehydration tube.

17. The method as recited in claim 15, further comprising providing fluid communication between the dehydration tube and the interior of the base pipe via a plurality of base pipe openings disposed along the base pipes of the plurality of sand control assemblies.

18. The method as recited in claim 15, wherein using comprises using a plurality of separate dehydration tubes coupled to the base pipe at a plurality of base pipe openings.

19. The method as recited in claim 15, further comprising actuating the flow control mechanism to control inflow of fluid to the interior of the base pipe.

20. The method as recited in claim 15, wherein providing the flow control mechanism comprises providing a valve; and further comprising actuating the valve.

21. The method as recited in claim 15, wherein providing the flow control mechanism comprises providing a swellable material in the dehydration tube.

22. The method as recited in claim 15, wherein providing the flow control mechanism comprises using a wash pipe to temporarily hold open a valve.

23. A method, comprising:

locating at least one dehydration tube along an exterior of filter media associated with a plurality of screen assemblies;

fluidly coupling the at least one dehydration tube to a base pipe of a selected screen assembly via a base pipe opening of the selected screen assembly;

controlling a fluid flow along the at least one dehydration tube with a flow control mechanism; and

separately controlling inflow of fluid from an exterior to an interior of certain screen assemblies with corresponding inflow control devices, each inflow control device being placed in communication with the interior through an inflow control device opening of the base pipe separate from the base pipe opening.

24. The method as recited in claim 23, further comprising maintaining the flow control mechanism open during a gravel packing operation and maintaining the flow control mechanism in a closed position after completing the gravel packing operation.

25. The method as recited in claim 23, further comprising locating at least one shunt tube along an exterior of the plurality of screen assemblies to provide a flow path.