

CLAIMS

What is claimed is:

1. A flow path system for use in a wellbore, comprising:
 - a telemetry module operable to wirelessly receive one or more control signals from a surface location;
 - a control module comprising a controller, a pump, and a reservoir of hydraulic fluid; and
 - a plurality of valves;
 - wherein the control module is operable to hydraulically actuate one or more of the valves to open or close positions in response to the one or more control signals from the surface location to create one or more flow paths in the wellbore.
2. The system of claim 1, further comprising a plurality of control lines for the hydraulic fluid between the pump and the plurality of valves.
3. The system of claim 1, wherein the pump comprises an electro-hydraulic motor.
4. The system of claim 1, wherein the plurality of valves comprises a sliding sleeve.
5. The system of claim 1, wherein the telemetry module is operable to wirelessly transmit signals to the surface location.
6. The system of claim 1, further comprising a plurality of transceivers spaced in the wellbore between the surface location and the telemetry module, wherein the plurality of transceivers are operable to wirelessly communicate the control signals from the surface location to the control module.
7. The system of claim 1, wherein the one or more control signals comprise at least one of electromagnetic signals, acoustic signals, or combinations thereof.
8. The system of claim 1, further comprising a screen, a wash pipe extending into the screen, work string pipe disposed above the wash pipe, wherein a first annulus is formed between the work string pipe and a casing, a second annulus is formed between the screen and the casing, a

third annulus is formed between the wash pipe and the screen, wherein the wash pipe and the work string are at least partially disposed in a tubing supporting the screen.

9. The system of claim 8, wherein the plurality of valves comprises:

a first valve disposed between the first annulus and an interior of the work string pipe to provide fluid communication between the interior of the work string pipe and the first annulus;

a second valve disposed between the tubing and the second annulus to provide fluid communication between the second annulus and the interior of the work string pipe by way of a port in the work string;

a third valve disposed between the work string pipe and the wash pipe to provide fluid communication between an interior of the wash pipe and the interior of the work string pipe;

a fourth valve disposed in a flow channel between the interior of the wash pipe and the first annulus to provide fluid communication between the interior of the wash pipe and the first annulus;

a fifth valve disposed in a flow path between the first annulus and the third annulus to provide fluid communication between the first annulus and the third annulus; and

a sixth valve disposed between the wash pipe and the third annulus to provide fluid communication between the wash pipe and the third annulus.

10. The system of claim 8, wherein the plurality of valves comprises a first position allowing fluid communication between the first annulus and the second annulus via an interior of work string pipe and a port in the work string pipe, a squeeze position providing communication between an interior of work string pipe and the second annulus by way of the port in the work string pipe, and a circulating position providing communication between an interior of work string pipe and second annulus by way of the port and return flow from the second annulus to first annulus through the screen and an interior of the wash pipe.

11. The system of claim 8, wherein a check valve is disposed in an end of the wash pipe.

12. A flow path system for use in a wellbore, comprising:

a plurality of transceivers spaced in the wellbore;

a telemetry module operable to wirelessly receive control signals from a surface location by way of the plurality of transceivers and to wireless transmit signals to the surface location by way of the plurality of transceivers;

a control module comprising a controller, a pump, and a reservoir of hydraulic fluid;

a plurality of valves; and

a plurality of control lines for the hydraulic fluid, wherein the plurality of control lines are disposed between the pump and the plurality of valves;

wherein the control module is operable to hydraulically actuate one or more of the valves to open or closed positions in response to the control signals from the surface location to create one or more flow paths in the wellbore.

13. The system of claim 12, further comprising a screen, a wash pipe extending into the screen, work string pipe disposed above the wash pipe, wherein a first annulus is formed between the work string pipe and a casing, a second annulus is formed between the screen and the casing, a third annulus is formed between the wash pipe and the screen, wherein the wash pipe and the work string are at least partially disposed in a tubing supporting the screen.

14. The system of claim 13, wherein the plurality of valves comprises:

a first valve disposed between the first annulus and an interior of the work string pipe to provide fluid communication between the interior of the work string pipe and the first annulus;

a second valve disposed between the tubing and the second annulus to provide fluid communication between the second annulus and the interior of the work string pipe by way of a port in the work string;

a third valve disposed between the work string pipe and the wash pipe to provide fluid communication between an interior of the wash pipe and the interior of the work string pipe;

a fourth valve disposed in a flow channel between the interior of the wash pipe and the first annulus to provide fluid communication between the interior of the wash pipe and the first annulus;

a fifth valve disposed in a flow path between the first annulus and the third annulus to provide fluid communication between the first annulus and the third annulus; and

a sixth valve disposed between the wash pipe and the third annulus to provide fluid communication between the wash pipe and the third annulus.

15. A method for gravel packing comprising:
transmitting one or more control signals from a surface location to a telemetry module disposed in a wellbore by way of wireless communication;
pressuring one or more control lines with a hydraulic fluid in response to the control signals;
changing a position of at least one of a plurality of valves with the one or more control signals to create at least one flow path in the wellbore; and
flowing a treatment fluid comprising gravel into an annulus around a screen to thereby pack the annulus with the gravel, wherein the treatment fluid flows through the at least one flow path.

16. The method of claim 15, further comprising transmitting one or more signals from the telemetry module to the surface location by way of wireless communication.

17. The method of claim 15, wherein the transmitting the one or more control signals from the surface location to the telemetry module comprises transmitting the one or more control signals to one or more transceivers disposed in the wellbore and then transmitting the one or more control signals from the one or more transceivers to the telemetry module.

18. The method of claim 15, wherein the one or more control signals causes one or more of the plurality of valves to open to cause fluid to flow from a first annulus, into an interior of a work string pipe, and into a second annulus, wherein the first annulus is formed between the work string pipe and a casing, wherein the second annulus is formed between the screen and the casing.

19. The method of claim 15, wherein the one or more control signals causes one or more of the plurality of valves to open causing a gravel pack fluid to flow through a work string pipe, into a second annulus, and squeezing through perforations into a formation, wherein the

second annulus is formed between the screen and a casing, and wherein the gravel pack fluid comprises a carrier fluid and gravel.

20. The method of claim 15, wherein the one or more control signals causes one or more of the plurality of valves to open causing a gravel pack fluid to flow down a work string pipe and into a second annulus, wherein the second annulus is formed between the screen and a casing, and wherein the gravel pack fluid comprises a carrier fluid and gravel, and wherein the gravel pack fluid returns from the second annulus to a first annulus via the screen and an interior of a wash pipe, wherein gravel in the gravel pack fluid is deposited in the second annulus.