

WHAT IS CLAIMED IS:

1. A flow restrictor system for use with a subterranean well, the system comprising:

5 a flow restrictor which resists flow through the system;

a pressure sensor; and

10 an initially closed device which opens and thereby permits the flow to bypass the flow restrictor, in response to a predetermined pressure signal being detected by the sensor.

2. The system of claim 1, wherein the pressure signal comprises multiple pressure pulses.

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3. The system of claim 1, wherein the flow restrictor permits the flow through the system.

20 4. The system of claim 1, wherein the flow is between an interior and an exterior of a tubular string in the well.

5. The system of claim 1, wherein the device comprises a valve.

25 6. The system of claim 1, wherein the device comprises a perforating charge.

7. The system of claim 1, wherein the device comprises a combustible material.

8. The system of claim 1, wherein the device
5 comprises multiple materials which increase pressure in the device in response to contact of the materials with each other.

9. The system of claim 1, wherein the flow restrictor
10 receives fluid from a screen.

10. The system of claim 9, wherein the device receives the fluid from the screen.

11. A method of variably restricting flow in a subterranean well, the method comprising:

resisting the flow through a sidewall of a tubular string; and

5 then selectively opening a device in response to a predetermined pressure signal being transmitted, the opening of the device substantially reducing a resistance to the flow through the tubular string sidewall.

10 12. The method of claim 11, wherein the flow substantially bypasses a flow restrictor in response to the opening of the device.

15 13. The method of claim 11, further comprising a pressure sensor detecting the pressure signal.

14. The method of claim 11, wherein the device comprises a valve.

20 15. The method of claim 11, wherein the flow is between an interior and an exterior of the tubular string in the well.

25 16. The method of claim 11, wherein the device comprises a perforating charge.

17. The method of claim 11, wherein the device comprises a combustible material.

18. The method of claim 11, wherein the device comprises multiple materials which increase pressure in the device in response to contacting the materials with each other.

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19. The method of claim 11, wherein the flow is from a screen to an interior of the tubular string.

20. The method of claim 19, wherein the device
10 receives fluid from the screen.

21. The method of claim 11, wherein the pressure signal comprises multiple pressure pulses.

CLAIMS

What is claimed is:

1. A flow restrictor system for use with a subterranean well, the system comprising:

a flow restrictor which resists flow through the system;

a pressure sensor; and

an initially closed device which opens and thereby permits the flow to bypass the flow restrictor, in response to a predetermined pressure signal being detected by the sensor, wherein the device comprises multiple materials which increase pressure in the device in response to contact of the materials with each other.
2. The system of claim 1, wherein the pressure signal comprises multiple pressure pulses.
3. The system of claim 1, wherein the flow restrictor permits the flow through the system.
4. The system of claim 1, wherein the flow is between an interior and an exterior of a tubular string in the well.
5. The system of claim 1, wherein the device comprises a valve.
6. The system of claim 1, wherein the flow restrictor receives fluid from a screen.
7. The system of claim 6, wherein the device receives the fluid from the screen.
8. A method of variably restricting flow in a subterranean well, the method comprising:

resisting the flow through a sidewall of a tubular string; and

then selectively opening a device in response to a predetermined pressure signal being transmitted, the opening of the device substantially reducing a resistance to the flow through the tubular string sidewall, wherein the device comprises multiple materials which increase pressure in the device in response to contacting the materials with each other.
9. The method of claim 8, wherein the flow substantially bypasses a flow restrictor in response to the opening of the device.

10. The method of claim 8, further comprising a pressure sensor detecting the pressure signal.
11. The method of claim 8, wherein the device comprises a valve.
12. The method of claim 8, wherein the flow is between an interior and an exterior of the tubular string in the well.
13. The method of claim 8, wherein the flow is from a screen to an interior of the tubular string.
14. The method of claim 13, wherein the device receives fluid from the screen.
15. The method of claim 8, wherein the pressure signal comprises multiple pressure pulses.