

WHAT IS CLAIMED IS:

1. A method for forming a seal in a wellbore comprising:
providing a swell packer comprising a swellable metal sealing element; wherein the
5 swell packer is disposed on a conduit in the wellbore,
exposing the swellable metal sealing element to a brine, and
allowing or causing to allow the swellable metal sealing element to swell.
2. The method of claim 1, wherein the swellable metal sealing element comprises a
10 metal, or metal alloy comprising a metal, selected from the group consisting of magnesium,
calcium, aluminum, and any combination thereof.
3. The method of claim 1, wherein the swellable metal sealing element swells to form
the seal against a wall of the wellbore.
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4. The method of claim 1, wherein the conduit is a first conduit; wherein the swellable
metal sealing element swells to form the seal between the first conduit and a second conduit.
5. The method of claim 1, wherein the swell packer further comprises a swellable non-
20 metal sealing element.
6. The method of claim 1, wherein the swell packer further comprises a non-swelling
reinforcement layer.
- 25 7. The method of claim 1, wherein the swellable metal sealing element is disposed on
the swell packer in at least two slats.
8. The method of claim 1, wherein the swellable metal sealing element comprises a gap
and wherein a line is disposed within the gap.
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9. The method of claim 1, wherein the conduit comprises a profile variance on its
exterior surface; wherein the swellable metal sealing element is positioned over the profile
variance.

10. The method of claim 1, wherein the swellable metal sealing element comprises a binder.
11. The method of claim 1, wherein the swellable metal sealing element comprises a metal oxide.
12. The method of claim 1, wherein the swell packer is disposed in a wellbore zone having a temperature greater than 350° F.
13. A swell packer comprising:
a swellable metal sealing element.
14. The swell packer of claim 13, wherein the swellable metal sealing element comprises a metal selected from the group consisting of magnesium, calcium, aluminum, and any combination thereof.
15. The swell packer of claim 13, wherein the swellable metal sealing element comprises a metal alloy comprising a metal selected from the group consisting of magnesium, calcium, aluminum, and any combination thereof.
16. The swell packer of claim 13, further comprising a swellable non-metal sealing element.
17. The swell packer of claim 13, further comprising a reinforcement layer.
18. A system for forming a seal in a wellbore:
a swell packer comprising a swellable metal sealing element, and
a conduit; wherein the swell packer is disposed on the conduit.
19. The system of claim 18, wherein the swell packer further comprises a swellable non-metal sealing element.

20. The system of claim 18, wherein the conduit comprises a profile variance on its exterior surface; wherein the swellable metal sealing element is positioned over the profile variance.