

Totems Marguerite Unit #1

1. Provide notice to COGCC prior to MIRU per Form 6 COA.
2. Call foreman or Lead Operator before rig up to isolate and remove automation and production equipment. Install fence if needed.
3. Notify CDC when rig moves on location to generate work order for flowline removal and one call for line locates.
4. No gyro needed. Gyro ran 11/2012
5. Place cement services on will call when rig moves on location, providing expected volumes of cement needed. (27 ft³ of 20/40 frac sand plug #1; ~65 sx plug #2; ~100 sx plug #3; ~115 sx plug #4)
6. Note: Casing patch I.D. restriction of 3.8" @ 5909'.
7. MIRU WO rig. Kill well, as necessary, with water containing biocide. ND wellhead. NU BOP's. Unseat landing joint and lay down.
8. TOOH and stand back tbg.
9. TIH to 8050' with tbg while hydrotesting to 3000 psi.
10. MIRU cementing services. Pump 27 ft³ of 20/40 frac sand down tubing placing sand plug over J-Sand perfs (expected top @ 8080').
11. Establish circulation down tubing.
12. Mix and Pump 65 sx of "G" w/20% silica flour, 0.4% CD-32, 0.4% ASA-301 and R-3 to achieve 2:30 pump time. (yield 1.38 ft³/sx, 15.8 ppg, ~16 bbl slurry)
13. PUH 34 jts (~1071') to 6979' laying down tubing and circulate hole with 125 bbl of at least 9 ppg mud to fill hole and remove any cement. RDMO cementing services. TOOH and stand back 5654' of tbg, lay down remaining tubing.
14. MIRU wireline services. PU CBL. Run CBL from 6000' to surface.
15. Contact APC Engineer with cement depths and change procedure accordingly.
16. RIH with 2-3/8" tbg to 5654'.
17. MIRU cementing services. Mix and Pump 100 sx of class "G" w/0.25 pps cello flake, 0.4% CD-32, 0.4% ASA-301. (yield 1.15 ft³/sx, 15.8 ppg, ~20 bbl slurry) Place balanced plug from 5654'-4678'.
18. PUH ~44 jts (~1386') to 4268' standing back 4678' of tubing and laying down remaining tubing.
19. Circulate hole with at least 9 ppg mud w/ biocide to remove any cement. WOC 4 hrs or overnight.
20. RIH with tubing and tag for cement. Note in openwells depth of cement. Continue with procedure if plug tagged at or above 4678'.
21. TOOH and stand back 797' and lay down remaining tubing.
22. MIRU wireline services. Shoot off casing at 320'. RDMO wireline services.
23. NDBOP NDTH. Unland casing from slips.
24. NU BOP on casing head. Install 4-1/2" pipe rams.

25. PU casing and conventionally circulate 50 bbl of mud. If circulation cannot be established contact engineer and COGCC for change in procedure.
26. TOO H with 4-1/2" casing and lay down.
27. PU 2-3/8" tbg and TIH into casing stub to 797'.
28. MIRU cementing services. Mix and pump 115 sx of Type III cement from 797' to 120' (yield 1.53 ft³/sx, 15.8 ppg, ~31.5 bbl slurry) (open hole calculated @ 10.5" with 40% excess). Place balanced plug from 797' – 120'. PUH to 100' and circulate 10 bbl of mud to remove any cement. RDMO cementing services. TOO H and stand back 120' of tubing, lay down remaining tubing. WOC 4 hrs or overnight.
29. TIH and tag cement plug, NOTE: DEPTH OF PLUG IN OPENWELLS. If plug top is above 120' TOO H and lay down tubing.
30. MIRU wireline services. PU 8-5/8" CIBP and RIH to 100'. Set CIBP and POOH. Pressure test CIBP to 1000 psi for 15 minutes. RDMO wireline services.
31. Assuming CIBP tests, RDMO
32. Wellsite supervisor turn all paper copies of cementing reports/invoices and logs in to Sabrina Frantz. NOTE: During the job, wellsite supervisor should instruct the logging and cementing contractors to e-mail all logs, job reports/invoices to Sabrina Frantz.
33. Have excavation contractor notify One-Call to clear for digging around wellhead and flowline removal.
34. Check top of cement inside 8-5/8" surface casing., place redi-mix cementer on will call. (6.5 bbl)
35. Excavate hole around surface casing of sufficient size and depth to allow welder to cut off 8-5/8" surface casing and at least 5' below ground level.
36. Have welder cut off 8-5/8" surface casing at least 5' below ground level.
37. MIRU ready cement mixer. Use 4,500 psi compressive strength redi-mix cement (sand and cement only, no gravel) to finish filling surface casing and production casing to top of cut off.
38. Have welder spot weld steel marker plate on top of surface casing. (Note: marker shall be labeled with well name and number, legal location (¼ ¼ description) and API number.
39. Properly abandon flowlines as per Rule 1103.
40. Have excavation contractor back fill hole with native material. Clean up location and have leveled to plant any vegetation required.
41. Submit Form 6 to COGCC. Provide "As Plugged" wellbore diagram identifying the specific plugging completed.

The Totems Marguerite Unit #1 is a 1973 J-Sand well not in HZ development. Well was deepened to the Dakota open-hole 1998. This well is a low producer. Well has had previous casing issues with a squeeze at 4000'-5000' and a casing patch at 5800'.