



**Mantle 32-28**  
**API# 05-123-21989**  
**P&A**

**DRAFT**

**March 13, 2018**

Engineer:	Tyler Barela
Director, Engineering:	Emily Miller
Workover Superintendent:	Matt Rohret
VP, DJ Operations:	John Schmidt

**Attachments:**

Attachment 1 – Current Wellbore Diagram  
Attachment 2 – Proposed Wellbore Diagram

**Objective:**

Set CIBP above J Sand perms. Set CIBP above Niobrara top. Pump Sussex squeeze. Cut casing at 1700'. Pump stub plug and surface casing shoe plug. Set 8-5/8" CIBP. Pump surface plug.

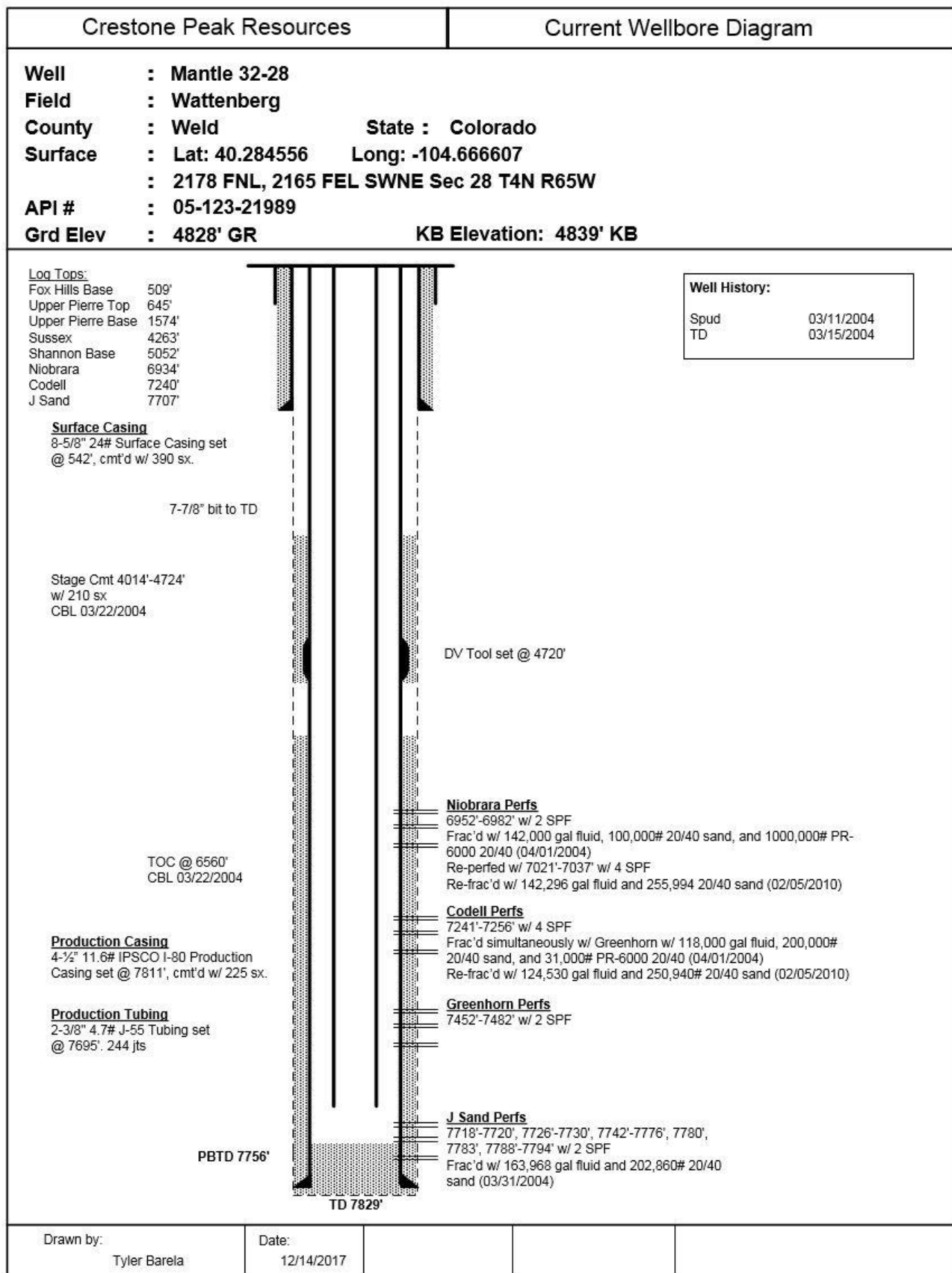
**Procedure:**

1. Submit electronic Form 42 to COGGC 48 hours prior to performing Form 17 Bradenhead Test.
2. Perform Form 17 Bradenhead Test and sample for gas, water, and oil per COGCC Regulation.
3. Submit electronic Form 42 to COGGC 48 hours prior to MIRU.
4. Submit form for Ground Disturbance Permit. Get One Call.
5. Notify Automation and Production Department.
6. RU Slick line, pull plunger and bumper spring.
7. Hold a pre-job safety meeting. Discuss all aspects of the procedure with any involved personnel. Identify and address any safety concerns before the job begins.
8. MIRU pulling unit. Kill well with fresh water. Contact lease operator before flushing flowline back to separator. Flush flowline back to separator and suck dry. Flowline will be abandoned in place per discussion with Surface Land. Have lease operator properly lock-out, tag-out (LOTO) flowline at separator and disconnect flowline from separator header. Notify Integrity Department to properly abandon flowlines as per Rule 1103. Surface Land department confirmed that flowline will be abandoned in place. File electronic Form 42 once abandonment is complete.
9. ND wellhead, NU BOP.
10. Un-land tubing.
11. TIH with tubing. Tag.
12. TOO H with tubing. Lay down tubing.
13. RU wireline.
14. RIH w/ GRJB to 7700'. POOH.
15. Pick up gyro tool.
16. RIH with gyro tool, recording station data every 100' from surface to 7700'.
17. Record last station at 7700'.
18. POOH with wireline. Lay down gyro tool.
19. RIH with CIBP on wireline. Set CIBP @ 7650' (68' above top J Sand perforation). Ensure that CIBP is set in the middle of the joint of casing.
20. POOH.
21. RIH and dump bail 2 sx cement on top of CIBP.
22. POOH.
23. RIH with CIBP on wireline. Set CIBP @ 6860' (92' above top Niobrara perforation). Ensure that CIBP is set in the middle of the joint of casing. Pressure test plug to 500 psi. Hold pressure for 15 minutes. Chart pressure on 1000 psi pressure chart. Call Production Engineer with results.
24. POOH.

25. RIH and dump bail 2 sx cement on top of CIBP.
26. POOH.
27. TIH with tubing to 4820'.
28. Pump a balanced plug with 25 sx (~5 bbl) Class G cement across DV tool from ~4491' to 4820'.
29. Pull tubing above cement plug with about 20 joints (10 stands). Reverse circulate to clear tubing.
30. TOOH with tubing. Lay down all tubing.
31. ND 7-1/16" BOP and wellhead. NU 11" BOP on surface casing. RU casing tongs and pipe wrangler.
32. RU wireline.
33. RIH with casing jet cutter on wireline. Cut 4-1/2" casing at 1700'. POOH with wireline. Pull casing with spear to first joint and remove casing slips. Establish circulation.
34. Pump a balanced plug with 80 sx (~16 bbl) Class G cement from ~1390' to 1600'.
35. TOOH to 650'. Roll hole. Ensure there is no pressure or hydrocarbons present. If evidence of either is found, contact Production Engineer.
36. Pump a balanced plug with 65 sx (~16 bbl) type III shoe cement blend (Type III w/0.3% CFL-3 + 0.3% CFR-2 + 0.4%CF-41P + 0.25 lb/sx cello flake, 1.38 yield) from ~424' to 650'.
37. TOOH laying down all casing. Wait on cement for 4 hours and check for pressure and hydrocarbons.
38. PU 2-3/8" tubing. TIH with tubing and tag cement top. Note tag depth and report tag depth to Production Engineer. Discuss any changes to procedure based on tag depth.
39. TOOH with tubing.
40. PU 8-5/8" CIBP on tubing. TIH, load tubing, and set 8-5/8" CIBP @ ~424'. TOOH. LD setting sleeve.
41. TIH with tubing open ended. Pressure test plug to 200 psi. Hold pressure for 15 minutes. Chart pressure on 1000 psi pressure chart. Call Production Engineer with results.
42. Spot 2 sx Type III cement on top of CIBP.
43. TOOH to ~80'. Spot a balanced plug with 20 sx (~5 bbl) Type III cement from ~80' to surface.
44. TOOH with tubing.
45. Top off surface casing if necessary.
46. ND BOP, RDMO pulling unit.
47. Per ground disturbance procedure/policy, excavate around wellhead. Notify Environmental Department for surface review and inspection while digging.
48. Notify EH&S to scan wellhead with FLIR to confirm well is plugged with no gas at surface. Save FLIR info in well file.
49. Cut off casing 4' below ground level.
50. Weld on metal plate and dry hole marker.
51. Contact surveyor to acquire as-built surface location.

52. Notify Integrity Department to properly abandon flowlines as per Rule 1103. Flowline will be abandoned in place per discussion with Surface Land. File electronic Form 42 once abandonment is complete.
53. Restore surface location.
54. Ensure all cement tickets are emailed to the Denver office for subsequent reporting. Emails shall be sent to Production Engineer, Workover Coordinator, and Production Technician.

# Attachment #1 – Current Wellbore Diagram



# Attachment #2 – Proposed Plugged Wellbore Diagram

