INJECTION WELL PLUGGING PLAN
40 CFR §146.92

Bluebonnet Sequestration Hub

1.0 Facility Information

Facility name: Bluebonnet Sequestration Hub (Bluebonnet Hub or the Project)
Bluebonnet CCS 1, Bluebonnet CCS 2, and Bluebonnet CCS 3 Wells

Facility contacts: Claimed as PBI

Well location: Claimed as PBI

Claimed as PBI

Pursuant 40 CFR §146.92, this Injection Well Plugging Plan describes the actions the Bluebonnet Sequestration Hub, LLC, will take to plug and abandon the CO_2 injector wells Bluebonnet CCS 1, Bluebonnet CCS 2, and Bluebonnet CCS 3. This plan also describes the proposed abandonment of the monitoring wells, water production wells, and water disposal wells in Appendix A.

After 15 years of injection, the project will plug and abandon Bluebonnet CCS 2. The injection will continue for five additional years in Bluebonnet CCS 1 and Bluebonnet CCS 3 as described in the Area of Review (AoR) delineation and Corrective Action document of this application. When the injection period is completed in Bluebonnet CCS 1 and Bluebonnet CCS 3, the project will proceed to plug and abandon both of those wells.

The plugging procedure and materials will be designed to prevent any unwanted fluid movement, resist the corrosive aspects of carbon dioxide (CO_2) with water mixtures, and protect any underground sources of drinking water (USDWs).

Bluebonnet Sequestration Hub, LLC, will notify the Underground Injection Control (UIC) Program Director in writing at least 60 days before plugging operations start. If there are changes required to the plug plugging plan, the project team will provide a revised program to the UIC Director for review and approval, per 40 CFR §146.92(c).

The Project will submit a plugging report to the UIC Director within 60 days after plugging each well and will comply with the requirements in 40 CFR §146.92(d).

2.0 General Tests and Measures Before Plugging and Abandoning CO_2 Injector Wells

Pursuant to 40 CFR §146.92(a), the project will perform the following activities prior to plugging each well.

1. Bottomhole pressure (BHP) measurements will be taken using the installed downhole gauges. In case the gauges are not functioning properly, the Bluebonnet Hub will run downhole pressure gauges during the plug and abandon (P&A) process of the well.

2. After injection has ceased, the well will be flushed with a kill/buffer fluid. A minimum of three tubing volumes will be injected without exceeding the fracture pressure.
3. An annular pressure test will be performed to assess internal mechanical integrity before the tubing and packer are removed from the well.
4. The project will evaluate the external mechanical integrity and condition of the casing using one of the methods described in Section 3.
5. If a loss of mechanical integrity is discovered, the well will be repaired before proceeding further with the plugging operations.
6. All casing in this well will have been cemented to the surface at the time of construction and will not be retrievable at abandonment.
7. A cement retainer will be used to squeeze and isolate the perforated section to prevent flowback of formation fluids that could contaminate the plug. The balanced-plug placement method will be used for the additional cement plugs planned.
8. Heavy gel mud (9.5-10.5 ppg) will be left between cement plugs.
9. All casing strings will be cut off at least 5 ft below the surface and plow line.
10. A blanking plate with the required permit information will be welded on top of the cutoff casing.

3.0 Planned External Mechanical Integrity Test(s)

The Bluebonnet Sequestration Hub, LLC, will conduct at least one of the tests listed below to verify external mechanical integrity prior to plugging each injection well as required by 40 CFR §146.92(a):

a. Pulse neutron log
b. Noise log
c. DTS (Distributed Temperature Sensing)/DAS (Distributed Acoustic Sensing) survey
d. Temperature log.

4.0 Information on Plugs

The Bluebonnet Sequestration Hub, LLC, will use the materials and methods noted in Table PLG-1, Table PLG-2, and Table PLG-3 to plug the CO_2 injector wells. The volume and depth of the plug or plugs will depend on the final geology and downhole conditions of the well as assessed during construction. The cement(s) formulated for plugging will be compatible with the CO_2 stream. The cement formulation and required certification documents will be submitted to the Environmental Protection Agency (EPA) Underground Injection Control (UIC) Program Director as well as Texas regulators with the well plugging plan. Bluebonnet Sequestration Hub, LLC will report the wet density and retain duplicate samples of the cement used for each plug.

An example of CO_2-resistant cement formulation is provided in Appendix B.

4.1 Bluebonnet CCS 1 Plug and Abandonment Details

Table PLG-1: Bluebonnet CCS 1 cement plug information.

Claimed as PBI

Notes:

- All plug depths will be adjusted after the well is drilled and completed.
- The plugging procedure will be updated as required by the EPA and Texas regulators.
- Formation tops will be adjusted after running open-hole electric logs.

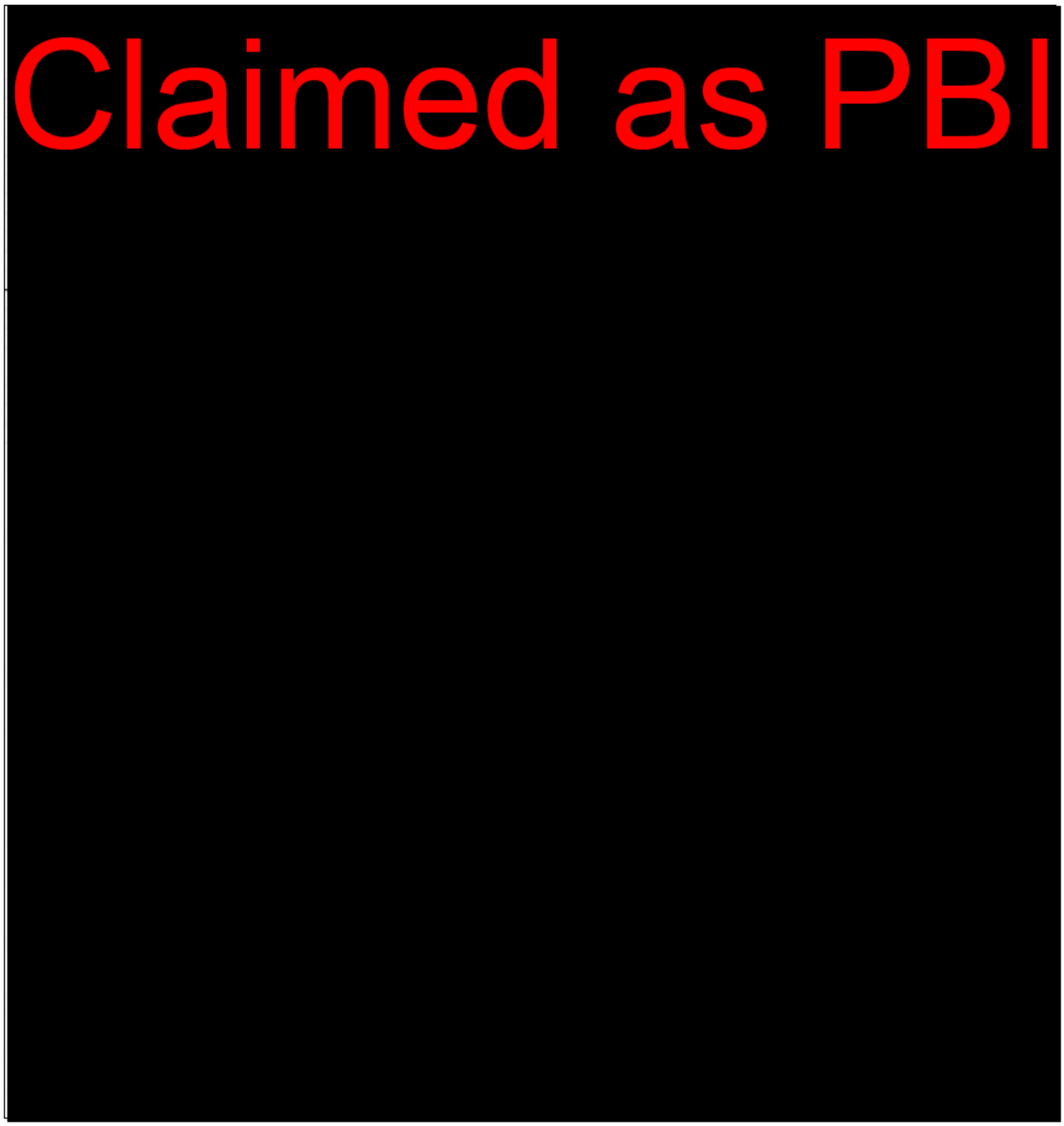

Figure PLG-1: Bluebonnet CCS 1 injection well plug schematic.

4.2 Bluebonnet CCS 2 Plug and Abandonment Details

Table PLG-2: Bluebonnet CCS 2 cement plug information.

Claimed as PBI

Notes:

- All plug depths will be adjusted after the well is drilled and completed.
- The plugging procedure will be updated as required by the EPA and Texas regulators.
- Formation tops will be adjusted after running open-hole electric logs.

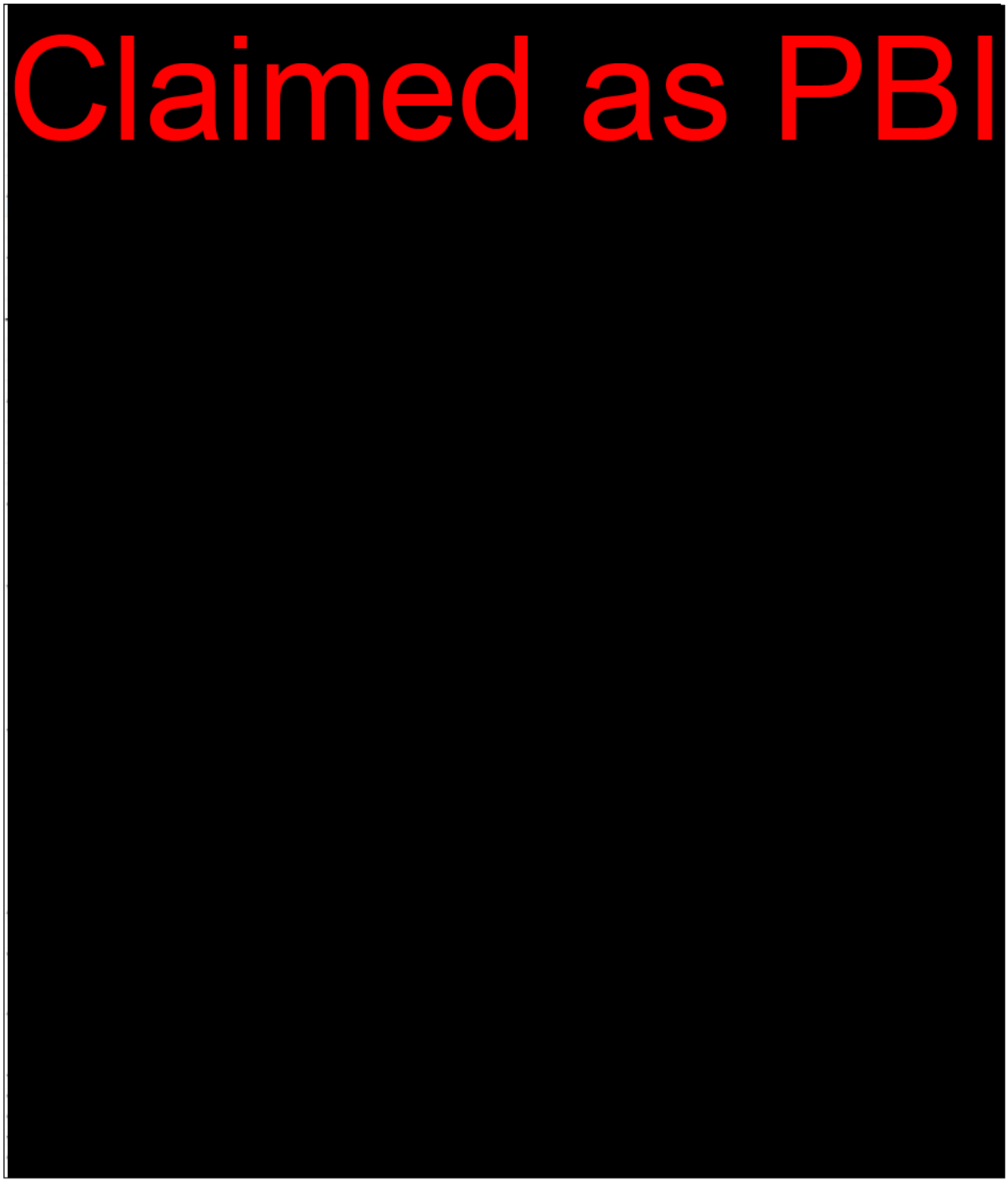

Figure PLG-2: Bluebonnet CCS 2 injection well plug schematic.

4.3 Bluebonnet CCS 3 Plug and Abandonment Details

Table PLG-3: Bluebonnet CCS 3 cement plug information.

Claimed as PBI

Notes:

- All plug depths will be adjusted after the well is drilled and completed.
- The plugging procedure will be updated as required by the EPA and Texas regulators.
- Formation tops will be adjusted after running open-hole electric logs.

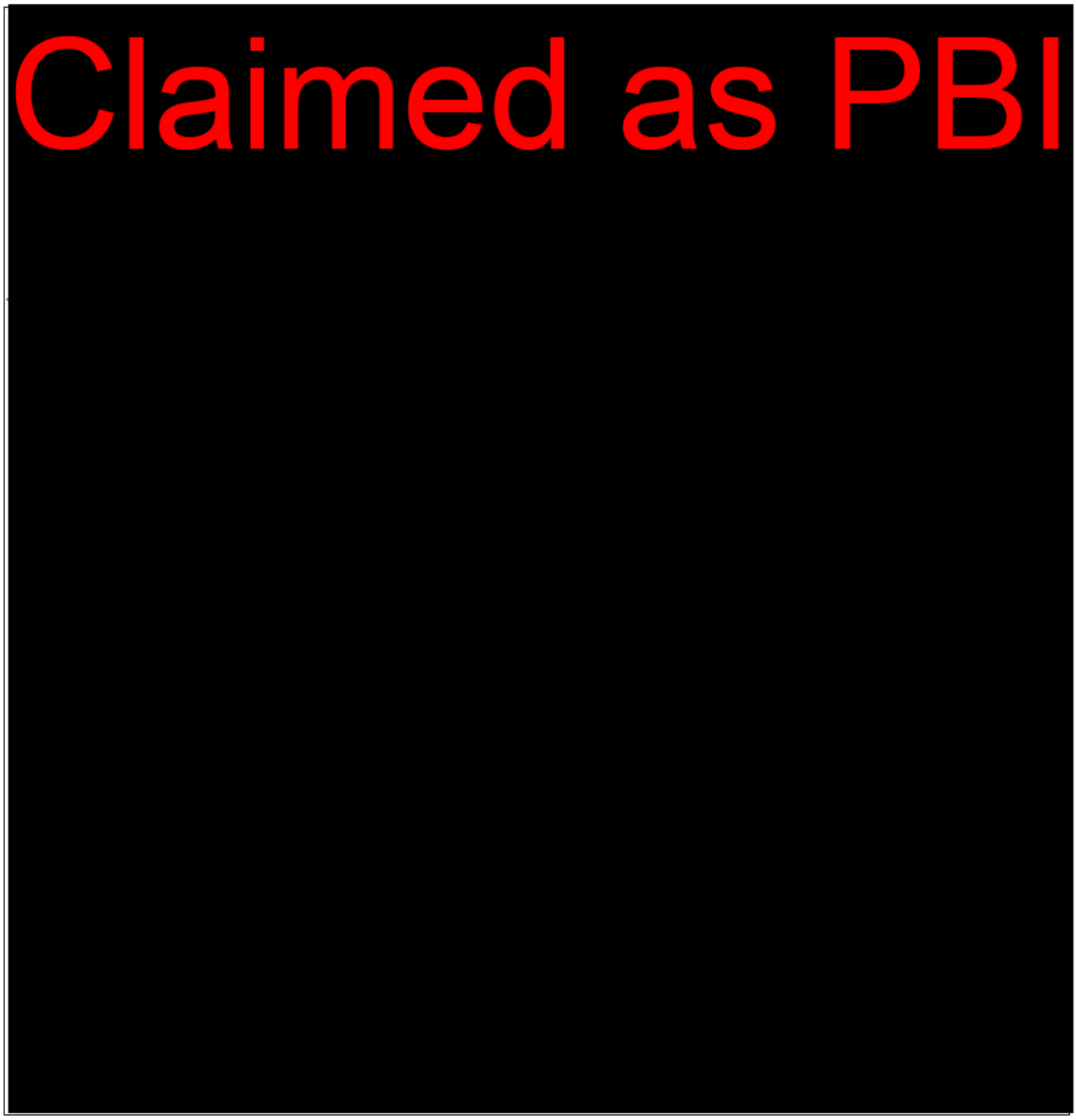

Figure PLG-3: Bluebonnet CCS 3 injection well plug schematic.

5.0 Narrative Description of Plugging Procedures for CO_2 Injector Wells

5.1 Notifications, Permits, and Inspections

In compliance with 40 CFR 146.92(c), the Bluebonnet Sequestration Hub, LLC, will notify the regulatory agency at least 60 days before plugging the well and provide an updated Injection Well Plugging Plan, if applicable.

5.2 Bluebonnet CCS 1 Plugging Procedure

1. Move the rig onto the Bluebonnet CCS 1 site and rig up (RU). All CO_2 pipelines will be marked and noted by the rig supervisor prior to moving in.
2. Conduct and document a safety meeting.
3. Record the BHP from the downhole gauge, perform a DST survey through the fiber optic cable installed alongside the casing, and calculate the kill fluid density. If the fiber optic cables are not functioning, skip this step and proceed with the methods described above for mechanical integrity evaluation after the tubing is pulled.
4. Test the pump and surface lines to 5,000 psi. Fill the tubing and flush the well with at least three times the tubing volume of kill/buffer fluid with the density determined using the BHP measurement. It may be necessary to bleed off occasionally to remove all air from the system. Monitor the tubing and annular pressure continuously.
5. Test the casing annulus to 500 psi and monitor for 30 minutes. If the pressure decreases more than 10% in 30 minutes, bleed the pressure, check surface lines and connections, and repeat the test. Then release the pressure.

   Note: If a failure in the long-string casing is identified, the Bluebonnet Hub will prepare a plan to repair the well before it is plugged and abandoned.
6. If both the casing and tubing are controlled, then nipple up the blowout preventers (BOPs).
7. Pull out of the hole and lay down tubing, packer, cable, and sensors.

   Contingency: If unable to release the tubing and retrieve the packer, rig up a lubricator and slickline and set a plug in the lower profile nipple below the packer. Rig up an electric line and make a cut on the tubing string just above the packer. The cut must be made at least 5–10 ft above the packer. Circulate with kill mud. Then pull the work string out of the hole and proceed recovering the packer with the work string. If problems are noted, update the cement remediation plan. A cement retainer will be used to force the cement in case the packer cannot be removed.
8. Pick up the work string and trip in hole with the bit to condition the wellbore.
9. Pull out of the hole and rig up the logging unit. Confirm external mechanical integrity by running one of the tests listed below:
   a. Pulse neutron log
   b. Noise log
   c. Temperature log
   d. DTS/DAS temperature survey (no need for logging unit)

Rig down the logging unit.

10. Set a cast iron bridge plug (CIBP) at Claimed as PBI.
11. Trip in hole with the work string and cement retainer to the top of plug #1 at Claimed as PBI. Circulate the well, set the retainer, and perform an injectivity test. Rig up equipment for cementing operations.
12. Plug #1: Mix and pump 14.8-15.5 ppg CO_2-resistant slurry to squeeze and seal the perforations in the injection zone of the Hackberry formations from Claimed as PBI. Disconnect from the retainer and check the flow. Spot 14.8-15.5 ppg CO_2-resistant slurry from the top of the cement retainer to Claimed as PBI Pull up above the plug and circulate heavy mud 9.5-10.5 ppg. Pull up out of the hole.
13. Plug #2: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover the two-stage cementing tool Claimed as PBI. Pull up above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug. Pull the string to the next plug stage.
14. Plug #3: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover the surface casing shoe, seal 3, and seal 2 Claimed as PBI. Pull up above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug.
15. Plug #4: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover seal 1 and the base of the USDW Claimed as PBI. Pull up above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug. Pull the string to the next plug stage.
16. Plug #5: Set a balanced plug with 15-15.5 ppg Class G cement slurry to isolate the top of the surface casing Claimed as PBI.
17. Lay down the work string. Rig down all equipment and move out. Cut the casing 5 ft below the ground. Clean the cellar so a plate can be welded with the required well information.

The procedures described above are subject to modification during execution as necessary to ensure a successful plugging operation. Any significant modifications due to unforeseen circumstances will be described in the plugging report.

5.2 Bluebonnet CCS 2 Plugging Procedure

1. Move the rig onto the Bluebonnet CCS 2 site and rig up. All CO_2 pipelines will be marked and noted by the rig supervisor prior to moving in.
2. Conduct and document a safety meeting.
3. Record the BHP from the downhole gauge, perform a DST survey through the fiber optic cable installed alongside the casing, and calculate the kill fluid density. If the fiber optics are not functioning, skip this step and proceed with the methods described above for mechanical integrity evaluation after the tubing is pulled.
4. Test the pump and surface lines to 5,000 psi. Fill the tubing and flush the well with at least three times the tubing volume of kill fluid with the density determined using the BHP

measurement. It may be necessary to bleed off occasionally to remove all air from the system. Monitor the tubing pressure and annular pressure continuously.

5. Test the casing annulus to 500 psi and monitor it for 30 minutes. If the pressure decreases more than 10% in 30 minutes, bleed the pressure, check surface lines and connections, and repeat the test. Then release the pressure.

   Note: If a failure in the long-string casing is identified, the Bluebonnet Hub will prepare a plan to repair the well before plugging and abandonment.

6. If both the casing and tubing are controlled, then nipple up the BOPs.

7. Pull out of the hole and lay down tubing, packer, cable, and sensors.

   Contingency: If unable to release the tubing and retrieve the packer, rig up a lubricator and slickline and set a plug in the lower profile nipple below the packer. Rig up an electric line and make a cut on the tubing string just above packer. The cut must be made at least 5–10 ft MD above the packer. Circulate with kill mud. Then pull the work string out of the hole and proceed recovering the packer with the work string. If problems are noted, update the cement remediation plan. A cement retainer will be used to force the cement in case the packer cannot be removed.

8. Pick up the work string and trip in hole (TIH) with the bit to condition the wellbore.

9. Pull out of the hole and rig up the logging unit. Confirm external mechanical integrity by running one of the tests listed below:

   a. Pulse neutron log
   b. Noise log
   c. Temperature log
   d. DTS / DAS temperature survey (no need for logging unit)

   Rig down the logging unit.

10. Set a CIBP at Claimed as PBI

11. Trip in hole with the work string and cement retainer to the top of plug #1 at Claimed as PBI. Circulate the well, set the retainer, and perform an injectivity test. Rig up equipment for cementing operations.

12. Plug #1: Mix and pump 14.8-15.5 ppg CO_2-resistant slurry to squeeze perforations and seal the perforations in the injection zone of the Frio formation from Claimed as PBI Disconnect from the retainer and check the flow. Circulate heavy mud (9.5-10.5 ppg). Pull up the hole.

13. Plug #2: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover the two-stage cementing tool Claimed as PBI. Pull up above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug. Pull the string to the next plug stage.

14. Plug #3: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover the surface casing shoe, seal 3, and seal 2 Claimed as PBI. Pull out above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug.

15. Plug #4: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover seal 1 and the base of the USDW Claimed as PBI. Pull up above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug. Pull the string to the next plug stage.
16. Plug #5: Set a balanced plug with 15-15.5 ppg Class G cement slurry to isolate the top of the surface casing Claimed as PBI.
17. Lay down the work string. Rig down all equipment and move out. Cut the casing 5 ft below the ground. Clean the cellar so a plate can be welded with the required well information.

The procedures described above are subject to modification during execution as necessary to ensure a successful plugging operation. Any significant modifications due to unforeseen circumstances will be described in the plugging report.

5.2 Bluebonnet CCS 3 Plugging Procedure

1. Move the rig onto the Bluebonnet CCS 3 site and rig up. All CO_2 pipelines will be marked and noted by the rig supervisor prior to moving in.
2. Conduct and document a safety meeting.
3. Record the BHP from the downhole gauge, perform DST survey through the fiber optic cable installed alongside the casing, and calculate the kill fluid density. If the fiber optics are not functioning, skip this step and proceed with the methods described above for mechanical integrity evaluation after the tubing is pulled.
4. Test the pump and surface lines to 5,000 psi. Fill the tubing and flush the well with at least three times the tubing volume of kill fluid with the density determined using the BHP measurement. It may be necessary to bleed off occasionally to remove all air from the system. Monitor the tubing pressure and annular pressure continuously.
5. Test casing annulus to 500 psi and monitor it for 30 minutes. If the pressure decreases more than 10% in 30 minutes, bleed the pressure, check surface lines and connections, and repeat the test. Then release the pressure.

   Note: If a failure in the long-string casing is identified, the Bluebonnet Hub will prepare a plan to repair the well before plugging and abandonment.
6. If both the casing and tubing are controlled, then nipple up the BOPs.
7. Pull out of the hole and lay down tubing, packer, cable, and sensors.

   Contingency: If unable to release the tubing and retrieve the packer, rig up a lubricator and slickline and set a plug in the lower profile nipple below the packer. Rig up an electric line and make a cut on the tubing string just above packer. The cut must be made at least 5–10 ft MD above the packer. Circulate with kill mud. Then pull the work string out of the hole and proceed recovering the packer with work string. If problems are noted, update the cement remediation plan. A cement retainer will be used to force the cement in case the packer cannot be removed.
8. Pick up the work string and trip in hole with the bit to condition the wellbore.
9. Pull out of the hole and rig up the logging unit. Confirm external mechanical integrity by running one of the tests listed below:

   a. Pulse neutron log
   b. Noise log
   c. Temperature log
   d. Fiber optic DTS

   Rig down the logging unit.
10. Set a CIBP at [redacted] Claimed as PBI

11. Trip in hole with the work string with a cast iron cement retainer to the top of plug #1 at Claimed as PBI Circulate the well, set the retainer, and perform an injectivity test. Rig up equipment for cementing operations.
12. Plug #1: Mix and pump 14.8-15.5 ppg CO_2-resistant slurry to squeeze perforations and seal the perforations in the injection zone of the Frio formation from Claimed as PBI Disconnect from the retainer and check the flow. Pull out of the hole.
13. Pick up bit and trip in hole to the cast iron cement retainer (CICR) at Claimed as PBI. Wait for the cement from plug #1 to develop 1000 psi compressive strength according to the laboratory test and drill out the CICR and cement down to CIBP at Claimed as PBI Test the casing to 500 psi and monitor for 30 minutes. If the pressure decreases more than 10% in 30 minutes, bleed the pressure, check surface lines and connections, and repeat the test. Then release the pressure. If the casing fails the pressure test, re-squeeze plug #1.
14. Continue cleaning the well down to Claimed as PBI Circulate the well clean. Pull out of the hole and lay down bit.
15. Set a CIBP at Claimed as PBI
16. Trip in hole with the work string and cement retainer to the top of plug #2 at Claimed as PBI Circulate the well, set the retainer, and perform an injectivity test. Rig up equipment for cementing operations.
17. Plug #2: Mix and pump 14.8-15.5 ppg CO_2-resistant slurry to squeeze perforations and seal the perforations in the injection zone of the Hackberry formation from Claimed as PBI Disconnect from the retainer and check the flow. Spot 14.8-15.5 ppg CO_2-resistant slurry from top of the cement retainer to Claimed as PBI Pull up above the plug and circulate heavy mud 9.5-10.5 ppg. Pull up the hole.
18. Plug #3: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover the two-stage cementing tool Claimed as PBI Pull up above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug. Pull the string to the next plug stage.
19. Plug #4: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover the surface casing shoe, seal 3, and seal 2 Claimed as PBI Pull up above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug.
20. Plug #5: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover seal 1 and the base of the USDW Claimed as PBI Pull up above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug. Pull the string to the next plug stage.
21. Plug #6: Set a balanced plug with 15-15.5 ppg Class G cement slurry to isolate the top of the surface casing Claimed as PBI.
22. Lay down the work string. Rig down all equipment and move out. Cut the casing 5 ft below the ground. Clean the cellar so a plate can be welded with the required well information.

The procedures described above are subject to modification during execution as necessary to ensure a successful plugging operation. Any significant modifications due to unforeseen circumstances will be described in the plugging report.

The proposed plugging and abandonment procedures and schematics for Bluebonnet IZM M1, Encanto 01, Bluebonnet PRDW F1, Bluebonnet PRDW F2, Bluebonnet DSW M1, Bluebonnet DSW M2, Bluebonnet IZM FM1, Bluebonnet IZM FM2, Bluebonnet USDW 1, Bluebonnet USDW 2, Bluebonnet USDW 3, Bluebonnet USDW 4, Bluebonnet USDW 5, and Bluebonnet USDW 6 are included in Appendix A.

Appendix A: Monitoring, Water Production, Water Disposal and USDW Well P&A

A.1 Bluebonnet IZM M1 Details

Table PLG-4: Bluebonnet IZM M1 cement plug information.

Claimed as PBI

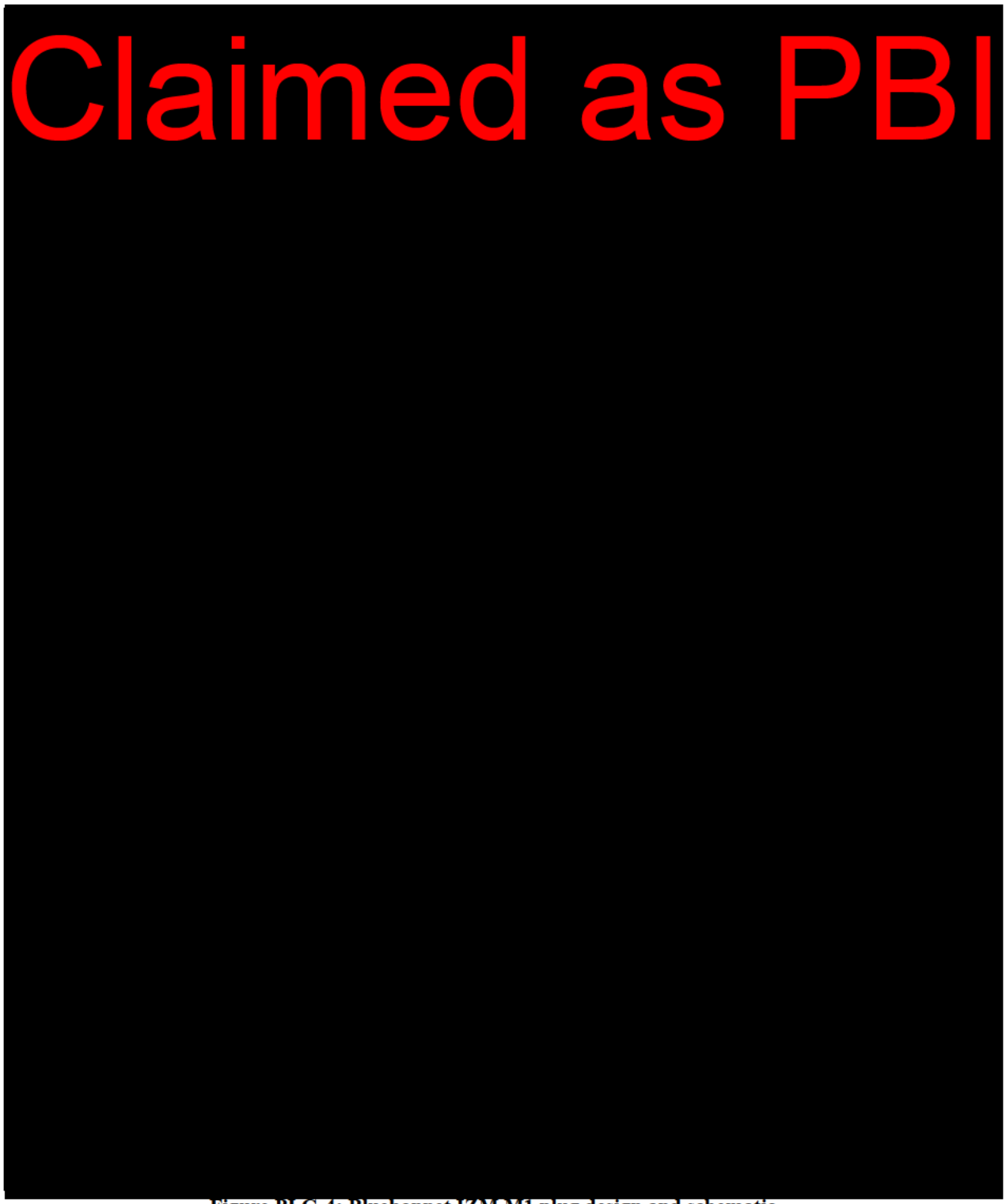

Figure PLG-4: Bluebonnet IZM M1 plug design and schematic.

Plugging Procedure

1. Move in the rig onto the Bluebonnet IZM M1 site and rig up.

2. Conduct and document a safety meeting.

3. Calculate the BHP from the downhole gauge or surface gauges and calculate the kill fluid density.

4. Test the pump and surface lines to 5,000 psi. Fill tubing and flush the well at least three times the tubing volume with kill fluid. It may be necessary to bleed off occasionally to remove all air from the system. Monitor the tubing pressure and annular pressure continuously.

5. Test the casing annulus to 500 psi and monitor it for 30 minutes. If the pressure decreases more than 10% in 30 minutes, bleed the pressure, check surface lines and connections, and repeat the test. Then release the pressure.

   > **Note**: If a failure in the long-string casing is identified, the Bluebonnet Hub will prepare a plan to repair the well before plugging and abandonment.

6. If both the casing and tubing are controlled, then nipple up the BOPs.

7. Pull out of the hole and lay down tubing, packer, cable, and sensors.

   Contingency: If unable to release the tubing and retrieve the packer, rig up a lubricator and slickline and set a plug in the lower profile nipple below the packer. Rig up an electric line and make a cut on the tubing string just above packer. The cut must be made at least 5–10 ft MD above the packer. Circulate with kill mud. Then pull the work string out of the hole and proceed recovering the packer with the work string. If problems are noted, update the cement remediation plan. A cement retainer will be used to force the cement in case the packer cannot be removed.

8. Pick up the work string and trip in hole with the bit to condition the wellbore.

9. Pull out of the hole and rig up the logging unit. Confirm external mechanical integrity by running one of the tests listed below in the event fiber optic cables are not functional:

   a. Pulse neutron log
   b. Noise log
   c. Temperature log

   Rig down the logging unit.

10. Set a CIBP at [redacted] Claimed as PBI

11. Trip in hole with the work string and cement retainer to the top of plug #1. Squeeze at Claimed as PBI Circulate the well, set the retainer, and perform an injectivity test. Rig up equipment for cementing operations.
12. Plug #1: Mix and pump 14.8-15.5 ppg CO2-resistant slurry to squeeze and seal the perforations in the injection zone of the Miocene formation from Claimed as PBI Disconnect from the retainer and check the flow. Circulate heavy mud (9.5-10.5 ppg). Pull out of the hole.
13. Plug #2: Set a balanced plug with 14.8-15.5 ppg CO2-resistant slurry to cover the two-stage cementing tool Claimed as PBI. Pull out above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug. Pull the string to the next plug stage.
14. Plug #3: Set a balanced plug with 14.8-15.5 ppg CO2-resistant slurry to cover the surface casing shoe, seal 3, and seal 2 Claimed as PBI Pull up above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug.
15. Plug #4: Set a balanced plug with 14.8-15.5 ppg CO2-resistant slurry to cover seal 1 and the base of the USDW Claimed as PBI Pull up above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug. Pull the string to the next stage.
16. Plug #5: Set a balanced plug with 15-15.5 ppg Class G cement slurry to isolate the top of the surface casing Claimed as PBI
17. Lay down the work string. Rig down all equipment and move out. Cut the casing 5 ft below the ground. Clean the cellar so a plate can be welded with the required well information.

The procedures described above are subject to modification during execution as necessary to ensure a successful plugging operation. Any significant modifications due to unforeseen circumstances will be described in the plugging report.

A.2 Encanto 01 Details

Table PLG-5: Bluebonnet Encanto 01 cement plug information.

Claimed as PBI

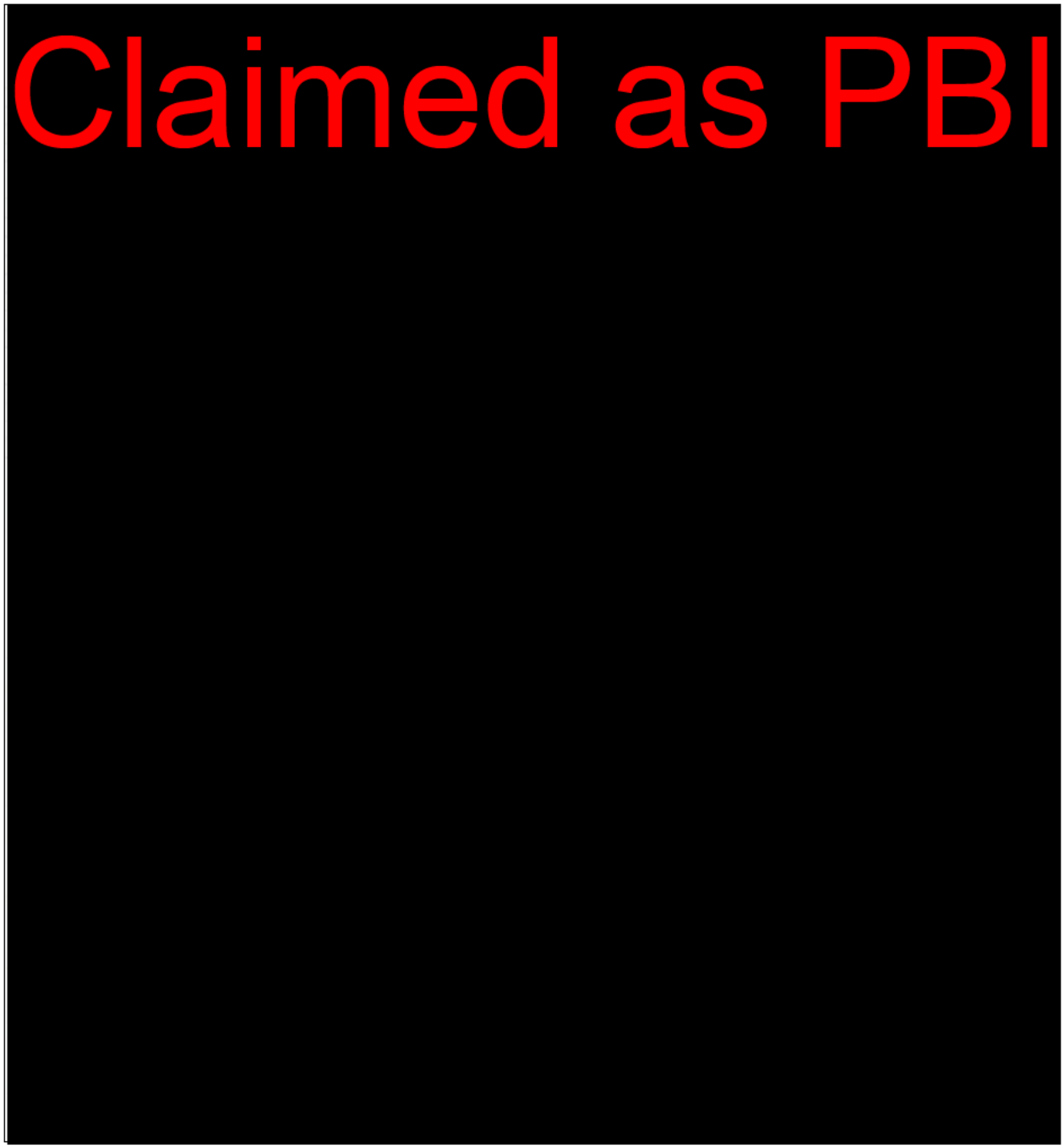

Figure PLG-5: Encanto 01 plug design and schematic.

Plugging Procedure

1. Move the rig onto the Encanto 01 site and rig up.
2. Conduct and document a safety meeting.
3. Calculate the BHP from downhole or surface gauges and determine kill fluid density.

4. Test the pump and surface lines to 5,000 psi. Fill the tubing and flush the well with at least three times the tubing volume of kill fluid. It may be necessary to bleed off occasionally to remove all air from the system. Monitor the tubing pressure and annular pressure continuously.
5. Test casing annulus to 500 psi and monitor it for 30 minutes. If the pressure decreases more than 10% in 30 minutes, bleed the pressure, check surface lines and connections, and repeat the test. Then release the pressure. Note: If a failure in the long-string casing is identified, the Bluebonnet Hub will prepare a plan to repair the well before plugging and abandonment.
6. If both the casing and tubing are controlled, then nipple up the BOPs.
7. Pull out of the hole and lay down tubing, packer, cable, and sensors.

   Contingency: If unable to release the tubing and retrieve the packer, rig up a lubricator and slickline and set a plug in the lower profile nipple below the packer. Rig up an electric line and make a cut on the tubing string just above packer. The cut must be made at least 5–10 ft MD above the packer. Circulate with kill mud. Then pull the work string out of the hole and proceed recovering the packer with the work string. If problems are noted, update the cement remediation plan. A cement retainer will be used to force the cement in case the packer cannot be removed.
8. Pick up the work string and trip in hole with bit to condition the wellbore.
9. Pull out of the hole and rig up the logging unit. Confirm external mechanical integrity by running one of the tests listed below in the event fiber optic cables are not functional:

   a. Pulse neutron log
   b. Noise log
   c. Temperature log

   Rig down the logging unit.
10. Trip in hole with the work string and cement retainer to the top of plug #1. Squeeze at Claimed as PBI. Circulate the well, set the retainer, and perform an injectivity test. Rig up equipment for cementing operations.
11. Plug #1: Mix and pump 14.8-15.5 ppg CO2-resistant slurry to squeeze perforations and seal the perforations in the injection zones of the Frio and Hackberry formations from Claimed as PBI Disconnect from the retainer and check the flow. Circulate heavy mud (9.5-10.5 ppg). Pull up the hole.
12. Plug #2: Set a balanced plug with 14.8-15.5 ppg CO2-resistant slurry to cover the stage tool Claimed as PBI Pull up above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug.
13. Plug #3: Set a balanced plug with 18.5-15.5 ppg Class G cement slurry to cover the surface casing shoe, seal 3, and seal 2 Claimed as PBI Pull up above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag top of the plug.

14. Plug #4: Set a balanced plug with 14.8-15.5 ppg CO2-resistant slurry to cover seal 1 and the base of the USDW Claimed as PBI Pull up above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug. Pull the string to the next stage.
15. Plug #4: Set a balanced plug with 15-15.5 ppg Class G cement slurry to isolate the top of the surface casing Claimed as PBI
16. Lay down the work string. Rig down all equipment and move out. Cut the casing 5 ft below the ground. Clean the cellar so a plate can be welded with the required well information.

The procedures described above are subject to modification during execution as necessary to ensure a successful plugging operation. Any significant modifications due to unforeseen circumstances will be described in the plugging report.

A.3. Bluebonnet PRDW F1 Details

Table PLG-6: Bluebonnet PRDW F1 cement plug information.

Claimed as PBI

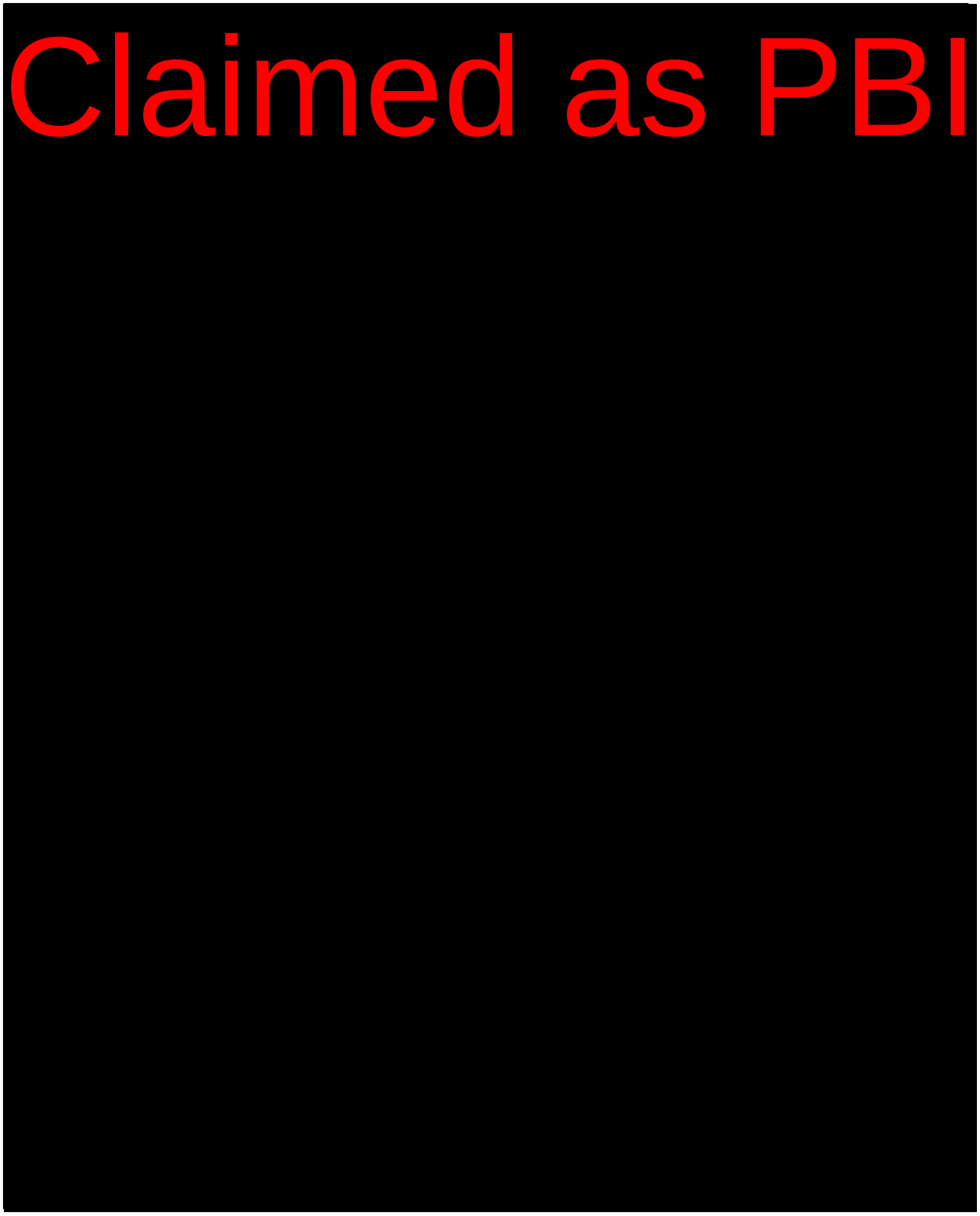

Figure PLG-6: Bluebonnet PRDW F1 plug design and schematic.

Plugging Procedure

1. Move rig onto the Bluebonnet PRDW F1 site and rig up.
2. Conduct and document a safety meeting.
3. Calculate the BHP from the downhole or surface gauges and determine the kill fluid density.
4. Test the pump and surface lines to 5,000 psi. Fill the tubing and flush the well at least three times the tubing volume with kill fluid. It may be necessary to bleed off occasionally to remove all air from the system. Monitor the tubing pressure and annular pressure continuously.
5. Test casing annulus to 500 psi and monitor it for 30 minutes. If the pressure decreases more than 10% in 30 minutes, bleed the pressure, check surface lines and connections, and repeat the test. Then release the pressure. Note: If a failure in the long-string casing is identified, the Bluebonnet Hub will prepare a plan to repair the well before plugging and abandonment.
6. If both the casing and tubing are controlled, then nipple up the BOPs.
7. Pull out of the hole and lay down tubing, packer, cable, and sensors.

   Contingency: If unable to release the tubing and retrieve the packer, rig up a lubricator and slickline and set a plug in the lower profile nipple below the packer. Rig up an electric line and make a cut on the tubing string just above packer. The cut must be made at least 5–10 ft MD above the packer. Circulate with kill mud. Then pull the work string up the hole and proceed to recover the packer with the work string. If problems are noted, update the cement remediation plan. A cement retainer will be used to force the cement in case the packer cannot be removed.
8. Pick up the work string and trip in hole with the bit to condition the wellbore.
9. Pull out of the hole and rig up the logging unit. Confirm external mechanical integrity by running one of the tests listed below in the event the fiber optic cables are not functional:

   a. Pulse neutron log
   b. Noise log
   c. Temperature log

   Rig down the logging unit.

10. Set a CIBP at Claimed as PBI
11. Trip in hole with the work string with a cement retainer to the top of plug #1. Squeeze at Claimed as PBI Circulate well, set retainer, and perform an injectivity test. Rig up equipment for cementing operations.
12. Plug #1: Mix and pump 14.8-15.5 ppg CO_2-resistant slurry to squeeze and seal the perforations in the injection zone of the Frio formation from Claimed as PBI. Disconnect

from the retainer and check the flow. Circulate heavy mud (9.5-10.5 ppg). Pull out of the hole.

13. Plug #2: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover the two-stage cementing tool Claimed as PBI Pull out above the plug and circulate. Wait for cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug. Pull the string up to the next plug stage.
14. Plug #3: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover the surface casing shoe, seal 3, and seal 2 Claimed as PBI Pull out above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug.
15. Plug #4: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover seal 1 and the base of the USDW Claimed as PBI Pull out above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug. Pull the string up to the next stage.
16. Plug #5: Set a balanced plug with 15-15.5 ppg Class G cement slurry to isolate the top of the surface casing Claimed as PBI
17. Lay down the work string. Rig down all equipment and move out. Cut the casing 5 ft below the ground. Clean the cellar so a plate can be welded with the required well information.

The procedures described above are subject to modification during execution as necessary to ensure a successful plugging operation. Any significant modifications due to unforeseen circumstances will be described in the plugging report.

A.4 Bluebonnet PRDW F2 Details

Table PLG-7: Bluebonnet PRDW F2 Cement Plug Information.

Claimed as PBI

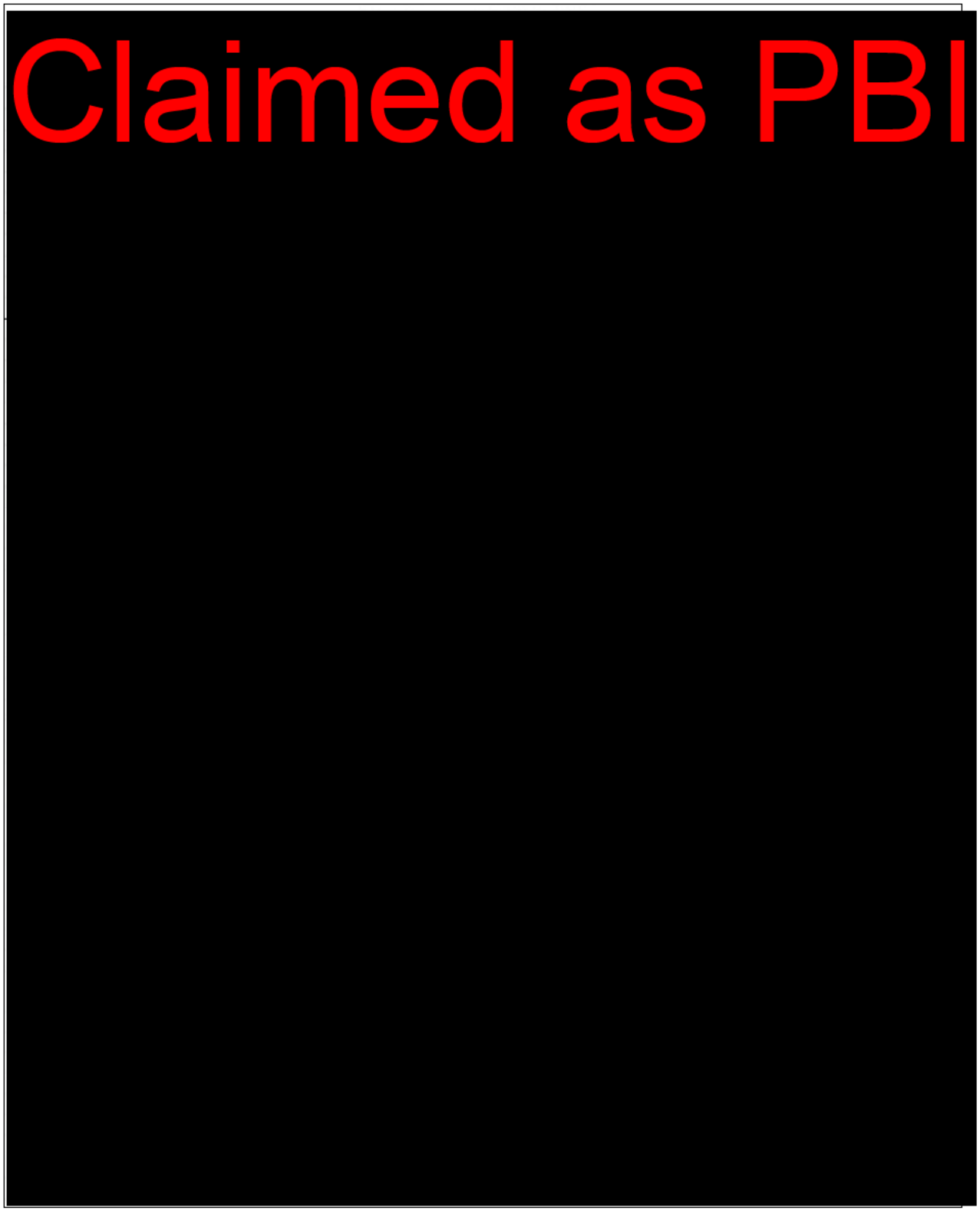

Figure PLG-7: Bluebonnet PRDW F2 plug design and schematic.

Plugging procedure

1. Move in rig onto the Bluebonnet PRDW F2 site and rig up.
2. Conduct and document a safety meeting.
3. Calculated the BHP from the downhole or surface gauges and determine the kill fluid density.
4. Test the pump and surface lines to 5,000 psi. Fill the tubing and flush the well at least three times the tubing volume with kill fluid. It may be necessary to bleed off occasionally to remove all air from the system. Monitor the tubing and annular pressure continuously.
5. Test casing annulus to 500 psi and monitor it for 30 minutes. If the pressure decreases more than 10% in 30 minutes, bleed the pressure, check surface lines and connections, and repeat the test. Then release the pressure. Note: If a failure in the long-string casing is identified, the Bluebonnet Hub will prepare a plan to repair the well before plugging and abandonment.
6. If both the casing and tubing are controlled, then nipple up the BOPs.
7. Pull out of the hole and lay down tubing, packer, cable, and sensors.

   Contingency: If unable to release the tubing and retrieve the packer, rig up a lubricator and slickline and set a plug in the lower profile nipple below the packer. Rig up an electric line and make a cut on the tubing string just above packer. The cut must be made at least 5–10 ft MD above the packer. Circulate with kill mud. Then pull the work string up of the hole and proceed to recover the packer with the work string. If problems are noted, update the cement remediation plan. A cement retainer will be used to force the cement in case the packer cannot be removed.
8. Pick up the work string and trip in hole with the bit to condition the wellbore.
9. Pull out of the hole and rig up the logging unit. Confirm external mechanical integrity by running one of the tests listed below in the event fiber optic cable is not functional:

   a. Pulse neutron log
   a. Noise log
   b. Temperature log

   Rig down the logging unit.
10. Set a CIBP at Claimed as PBI.
11. Trip in hole with the work string with a cement retainer to the top of plug #1. Squeeze at Claimed as PBI Circulate well, set retainer, and perform an injectivity test. Rig up equipment for cementing operations.
12. Plug #1: Mix and pump 14.8-15.5 ppg CO_2-resistant slurry to squeeze and seal the perforations in the injection zone of the Frio formation from Claimed as PBI. Disconnect from the retainer and check the flow. Circulate heavy mud (9.5-10.5 ppg). Pull up the hole.
13. Plug #2: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover the two-stage cementing tool Claimed as PBI Pull up above the plug and circulate. Wait for the cement

to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug. Pull the string up to the next plug stage.

14. Plug #3: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover the surface casing shoe, seal 3, and seal 2 Claimed as PBI. Pull up above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug.
15. Plug #4: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover seal 1 and the base of the USDW Claimed as PBI Pull up above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug. Pull the string up to the next stage.
16. Plug #5: Set a balanced plug with 15-15.5 ppg Class G cement slurry to isolate the top of the surface casing Claimed as PBI
17. Lay down the work string. Rig down all equipment and move out. Cut the casing 5 ft below the ground. Clean the cellar so a plate can be welded with the required well information.

The procedures described above are subject to modification during execution as necessary to ensure a successful plugging operation. Any significant modifications due to unforeseen circumstances will be described in the plugging report.

A.5 Bluebonnet DSW M1 Details

Table PLG- 8: Bluebonnet DSW M1 Cement Plug Information.

Claimed as PBI

*Perfs to be picked after drilling

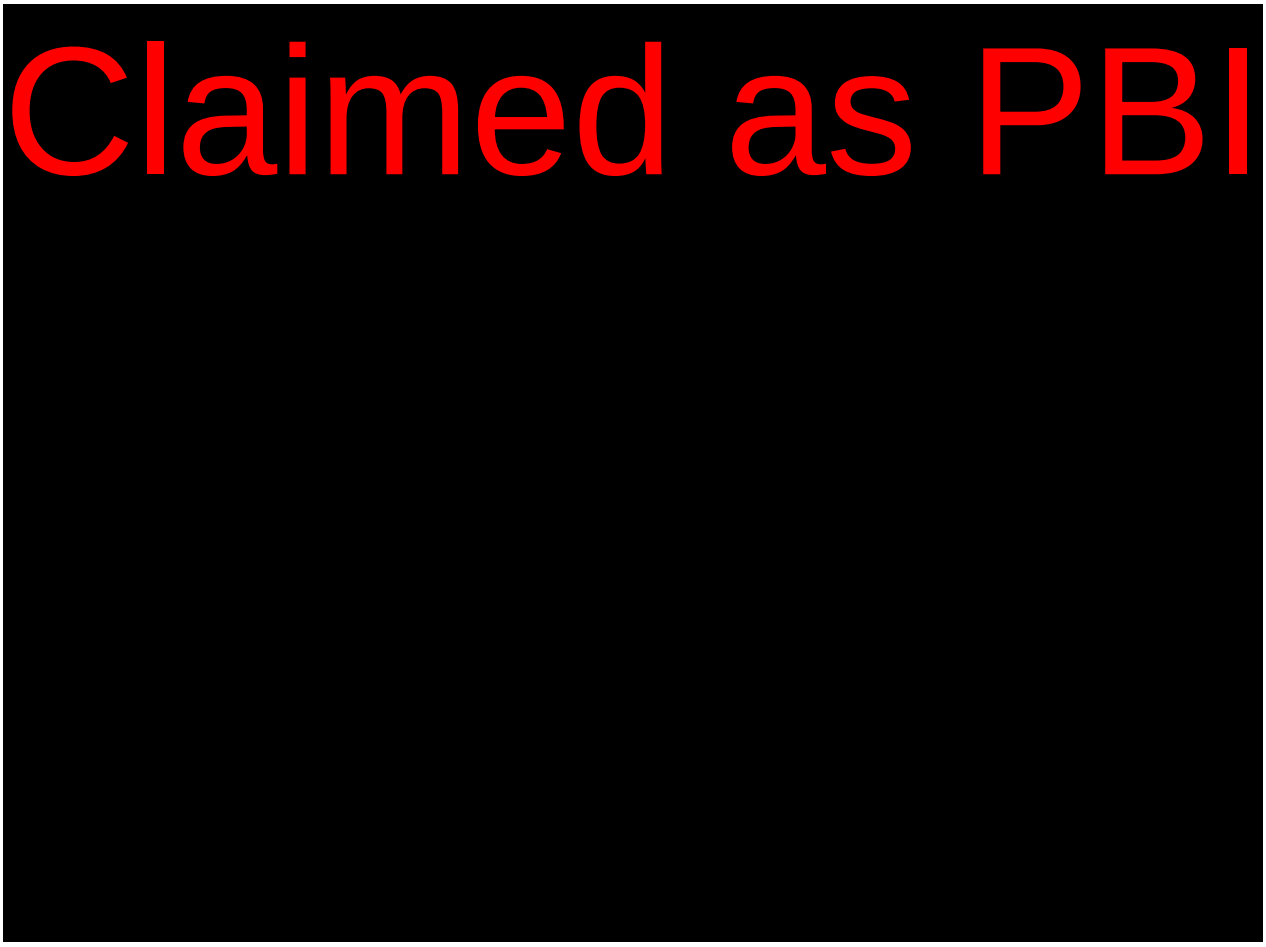

Figure PLG-8: Bluebonnet DSW M1 plug design and schematic.

Plugging Procedure

1. Move in rig onto the Bluebonnet DSW M1 site and rig up.
2. Conduct and document a safety meeting.
3. Calculated the BHP from the downhole or surface gauges and calculate the kill fluid density.
4. Test the pump and surface lines to 5,000 psi.
5. Test casing annulus to 500 psi and monitor it for 30 minutes. If the pressure decreases more than 10% in 30 minutes, bleed the pressure, check surface lines and connections, and repeat the test. Then release the pressure. Note: If a failure in the long-string casing is identified, the Bluebonnet Hub will prepare a plan to repair the well before plugging and abandonment.
6. If both the casing and tubing are controlled, then nipple up the BOPs.
7. Pull out of the hole and lay down tubing, packer, cable, and sensors.

   Contingency: If unable to release the tubing and retrieve the packer, rig up a lubricator and slickline and set a plug in the lower profile nipple below the packer. Rig up an electric

line and make a cut on the tubing string just above packer. The cut must be made at least 5–10 ft MD above the packer. Circulate with kill mud. Then pull the work string up the hole and proceed to recover the packer with the work string. If problems are noted, update the cement remediation plan. A cement retainer will be used to force the cement in case the packer cannot be removed.

8. Pick up the work string and trip in hole with the bit to condition the wellbore.
9. Set a CIBP at Claimed as PBI.
10. Trip in hole with the work string with a cement retainer to the top of plug #1. Squeeze at 2,630 ft. Circulate he well, set the retainer, and perform an injectivity test. Rig up equipment for cementing operations.
11. Plug #1: Mix and pump 14.8-15.5 ppg CO_2-resistant slurry to squeeze and seal the perforations in the water disposal zone from Claimed as PBI Disconnect from the retainer and check the flow. Circulate heavy mud (9.5-10.5 ppg). Pull out of the hole.
12. Plug #2: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover the surface casing shoe, seal 1 and the base of the USDW Claimed as PBI Pull out above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug.
13. Plug #3: Set a balanced plug with 15-15.5 ppg Class G cement slurry to isolate the top of the surface casing Claimed as PBI
14. Lay down the work string. Rig down all equipment and move out. Cut the casing 5 ft below the ground. Clean the cellar so a plate can be welded with the required well information.

The procedures described above are subject to modification during execution as necessary to ensure a successful plugging operation. Any significant modifications due to unforeseen circumstances will be described in the plugging report.

A.6 Bluebonnet DSW M2 Details

Table PLG-9: Bluebonnet DSW M2 Cement Plugs Information.

*Perfs to be picked after drilling

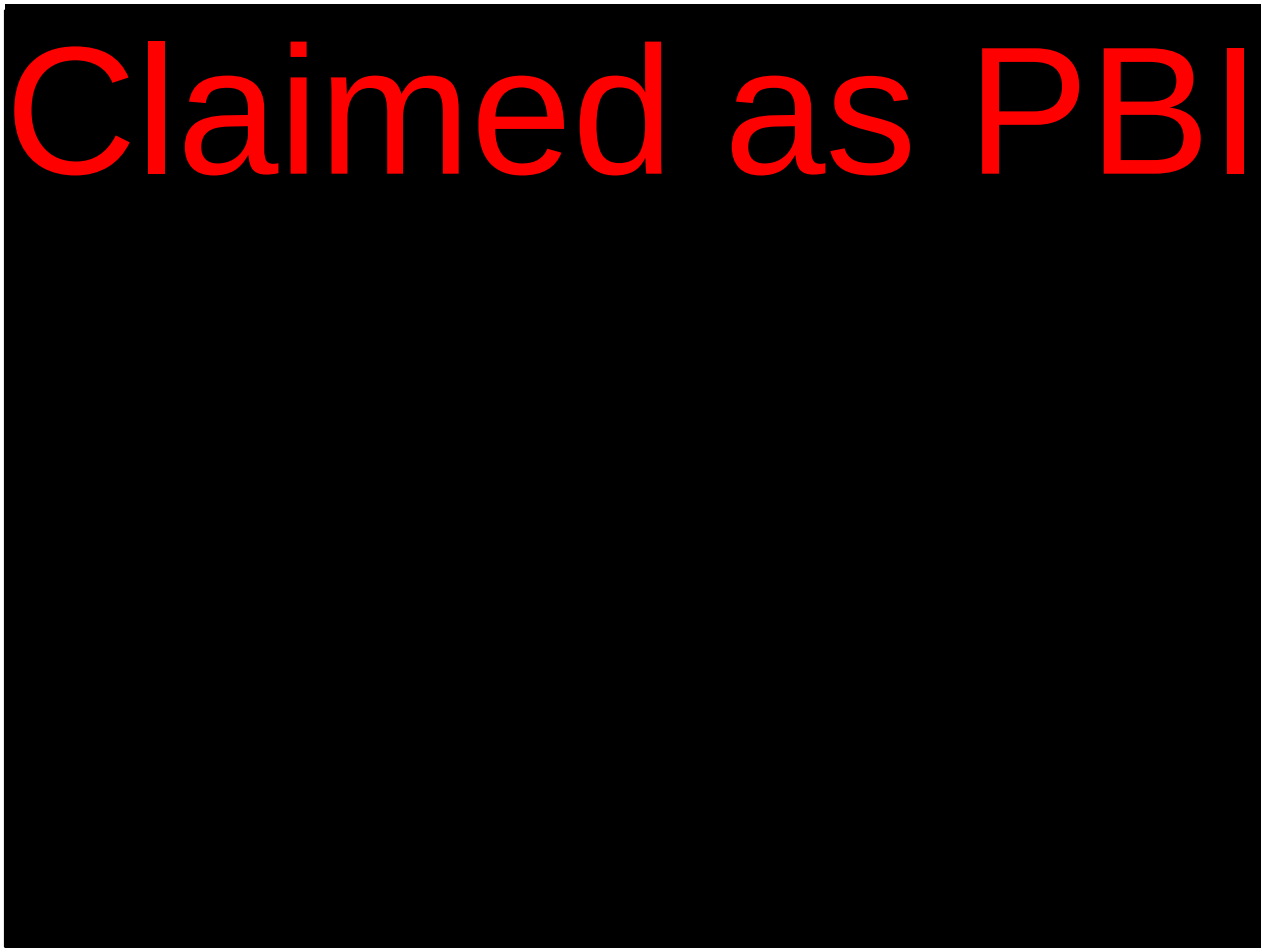

Figure PLG-9: Bluebonnet DSW M2 plug design and schematic.

Plugging Procedure

1. Move in rig onto the Bluebonnet DSW M2 site and rig up.
2. Conduct and document a safety meeting.
3. Calculated the BHP from the downhole or surface gauges and calculate the kill fluid density.
4. Test the pump and surface lines to 5,000 psi.
5. Test casing annulus to 500 psi and monitor it for 30 minutes. If the pressure decreases more than 10% in 30 minutes, bleed the pressure, check surface lines and connections, and repeat the test. Then release the pressure. Note: If a failure in the long-string casing is identified, the Bluebonnet Hub will prepare a plan to repair the well before plugging and abandonment.
6. If both the casing and tubing are controlled, then nipple up the BOPs.
7. Pull out of the hole and lay down tubing, packer, cable, and sensors.

   Contingency: If unable to release the tubing and retrieve the packer, rig up a lubricator and slickline and set a plug in the lower profile nipple below the packer. Rig up an electric

line and make a cut on the tubing string just above packer. The cut must be made at least 5–10 ft MD above the packer. Circulate with kill mud. Then pull the work string up the hole and proceed to recover the packer with the work string. If problems are noted, update the cement remediation plan. A cement retainer will be used to force the cement in case the packer cannot be removed.

8. Pick up the work string and trip in hole with the bit to condition the wellbore.
9. Set a CIBP at Claimed as PBI
10. Trip in hole with the work string with a cement retainer to the top of plug #1. Squeeze at Claimed as PBI Circulate well, set retainer, and perform an injectivity test. Rig up equipment for cementing operations.
11. Plug #1: Mix and pump 14.8-15.5 ppg CO_2-resistant slurry to squeeze and seal the perforations in the water disposal zone from Claimed as PBI Disconnect from the retainer and check the flow. Circulate heavy mud (9.5-10.5 ppg). Pull out of the hole.
12. Plug #2: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover the surface casing shoe, seal 1 and the base of the USDW Claimed as PBI. Pull out above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug.
13. Plug #3: Set a balanced plug with 15-15.5 ppg Class G cement slurry to isolate the top of the surface casing Claimed as PBI
14. Lay down the work string. Rig down all equipment and move out. Cut the casing 5 ft below the ground. Clean the cellar so a plate can be welded with the required well information.

The procedures described above are subject to modification during execution as necessary to ensure a successful plugging operation. Any significant modifications due to unforeseen circumstances will be described in the plugging report.

A.7 Bluebonnet IZM FM1 Details

Table PLG-10: Bluebonnet IZM FM1 Cement Plug Information.

Claimed as PBI

*50-150 ft Net perfs. To be selected after well is drilled

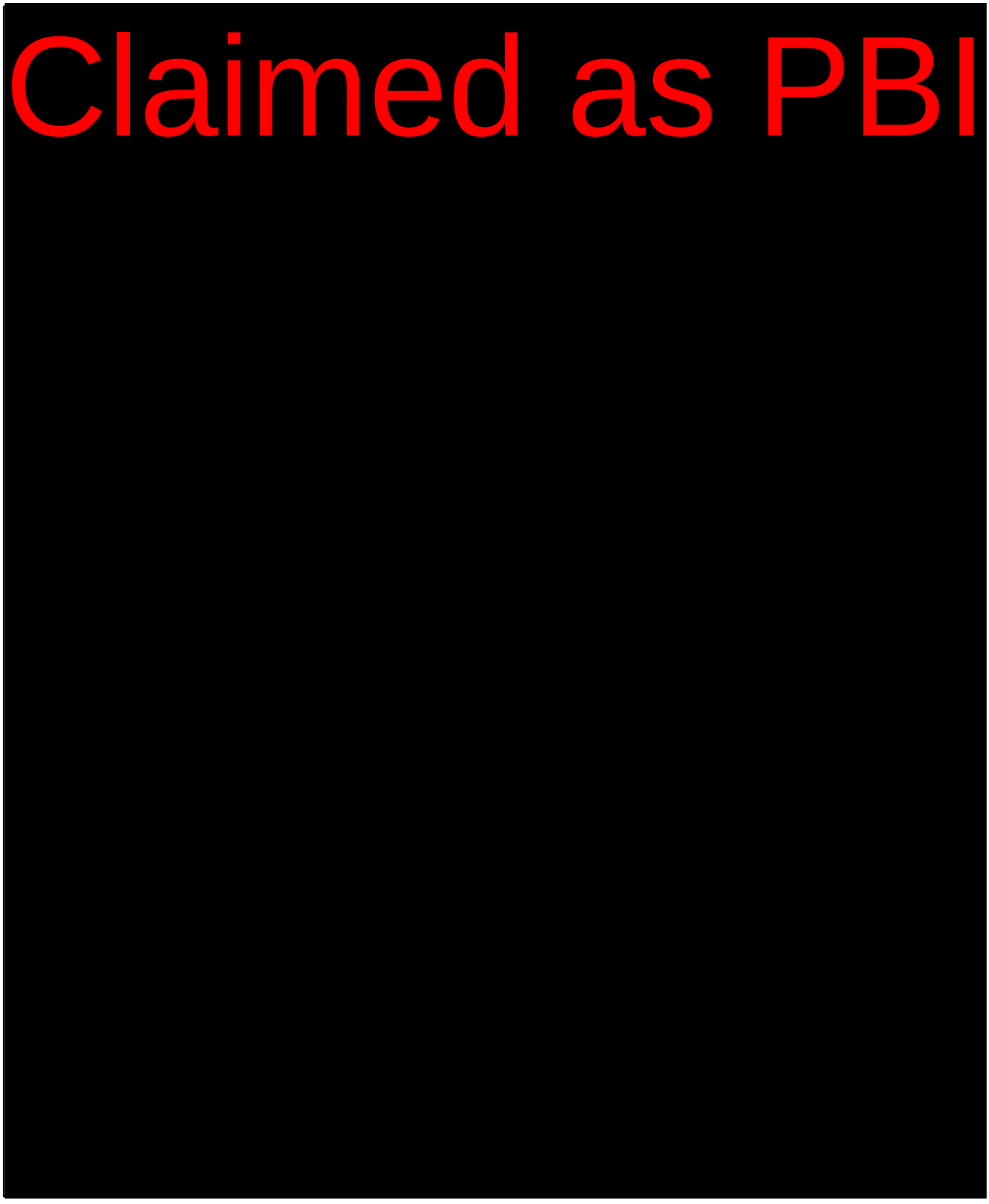

Figure PLG-10: Bluebonnet IZM FM1 plug design and schematic.

Plugging Procedure

1. Move in rig onto the Bluebonnet IZM FM1 site and rig up.
2. Conduct and document a safety meeting.
3. Calculate the BHP from the downhole gauge or surface gauges and calculate the kill fluid density.
4. Test the pump and surface lines to 5,000 psi. Fill the tubing and flush the well at least three times the tubing volume with kill fluid. It may be necessary to bleed off occasionally to remove all air from the system. Monitor the tubing pressure and annular pressure continuously.
5. Test casing annulus to 500 psi and monitor it for 30 minutes. If the pressure decreases more than 10% in 30 minutes, bleed the pressure, check surface lines and connections, and repeat the test. Then release the pressure. Note: If a failure in the long-string casing is identified, the Bluebonnet Hub will prepare a plan to repair the well before plugging and abandonment.
6. If both the casing and tubing are controlled, then nipple up the BOPs.
7. Pull out of the hole and lay down tubing, packer, cable, and sensors.

   Contingency: If unable to release the tubing and retrieve the packer, rig up a lubricator and slickline and set a plug in the lower profile nipple below the packer. Rig up an electric line and make a cut on the tubing string just above packer. The cut must be made at least 5–10 ft MD above the packer. Circulate with kill mud. Then pull the work string up the hole and proceed to recover the packer with the work string. If problems are noted, update the cement remediation plan. A cement retainer will be used to force the cement in case the packer cannot be removed.
8. Pick up the work string and trip in hole with the bit to condition the wellbore.
9. Pull out of the hole and rig up the logging unit. Confirm external mechanical integrity by running one of the tests listed below in the event the fiber optic cable is not functional:

   a. Pulse Neutron Log
   b. Noise Log
   c. Temperature Log

   Rig down the logging unit.
10. Set a CIBP at [redacted]
11. Trip in hole with the work string with a cement retainer to the top of plug #1. Squeeze at [redacted] Circulate the well, set the retainer, and perform an injectivity test. Rig up equipment for cementing operations.
12. Plug #1: Mix and pump 14.8-15.5 ppg CO_2-resistant slurry to squeeze and seal the perforations in the injection zones of the Frio and Hackberry formation from [redacted] Disconnect from the retainer and check the flow. Circulate heavy mud (9.5-10.5 ppg). Pullup the hole.

13. Plug #2: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover the two-stage cementing tool Claimed as PBI Pull out above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug. Pull the string up to the next plug stage.
14. Plug #3: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover the surface casing shoe, seal 3, and seal 2 Claimed as PBI Pull out above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug.
15. Plug #4: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover Seal 1 and the base of the USDW (Claimed as PBI Pull out above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug. Pull the string up to the next stage.
16. Plug #5: Set a balanced plug with 15-15.5 ppg Class G cement slurry to isolate the top of the surface casing Claimed as PBI
17. Lay down the work string. Rig down all equipment and move out. Cut the casing 5 ft below the ground. Clean the cellar so a plate can be welded with the required well information.

The procedures described above are subject to modification during execution as necessary to ensure a successful plugging operation. Any significant modifications due to unforeseen circumstances will be described in the plugging report.

A.8 Bluebonnet IZM FM2 Details

Table PLG-11: Bluebonnet IZM FM2 Cement Plug Information.

Claimed as PBI

*50-150 ft Net perfs. To be selected after well is drilled

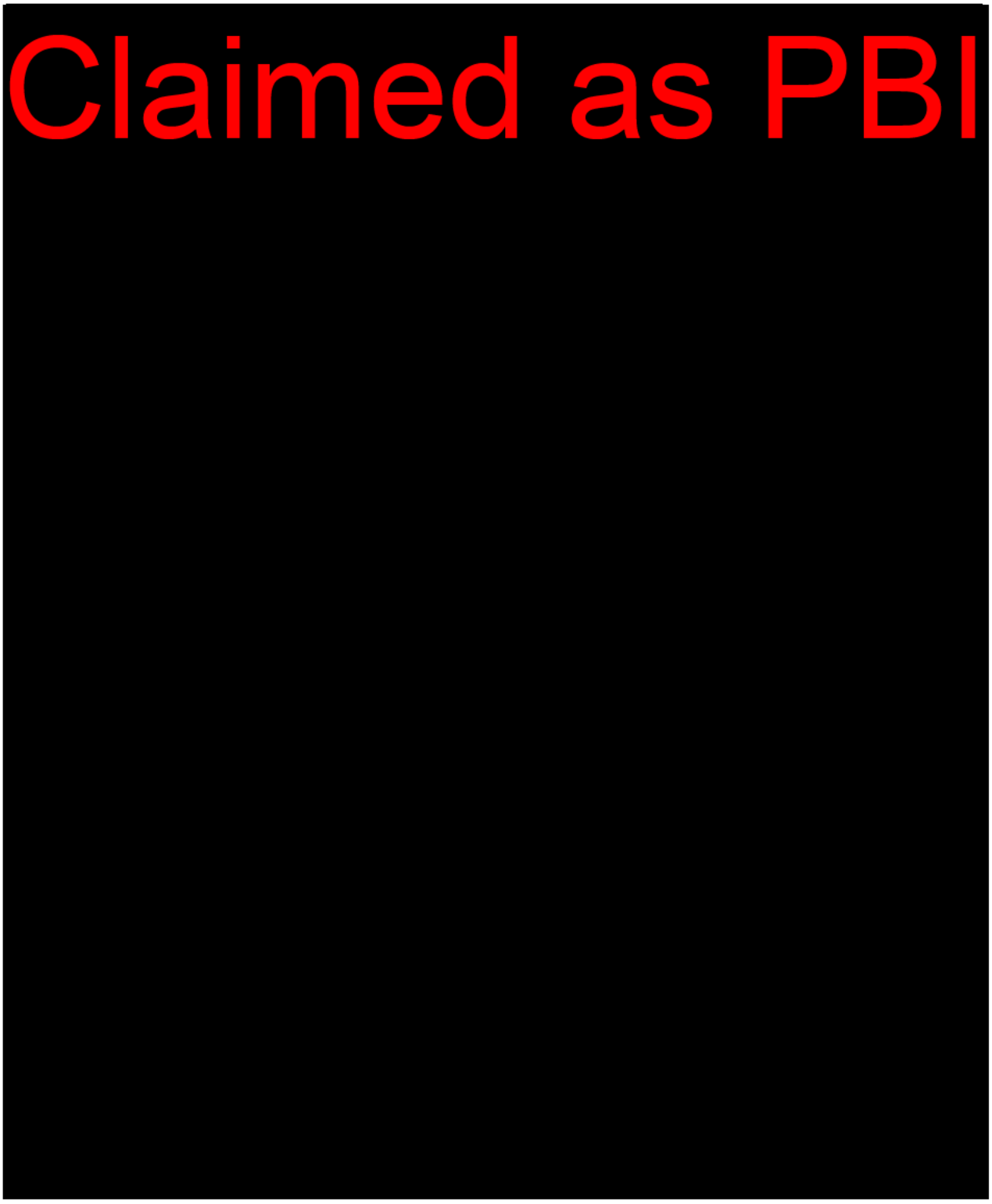

Figure PLG-11: Bluebonnet IZM FM2 plug design and schematic.

Plugging Procedure

1. Move in rig onto the Bluebonnet IZM FM2 site and rig up.

2. Conduct and document a safety meeting.

3. Calculate the BHP from the downhole or surface gauges and calculate the kill fluid density.

4. Test the pump and surface lines to 5,000 psi. Fill the tubing and flush the well at least three times the tubing volume with kill fluid. It may be necessary to bleed off occasionally to remove all air from the system. Monitor the tubing and annular pressures continuously.

5. Test casing annulus to 500 psi and monitor it for 30 minutes. If the pressure decreases more than 10% in 30 minutes, bleed the pressure, check surface lines and connections, and repeat the test. Then release the pressure. Note: If a failure in the long-string casing is identified, the Bluebonnet Hub will prepare a plan to repair the well before plugging and abandonment.

6. If both the casing and tubing are controlled, then nipple up the BOPs.

7. Pull out of the hole and lay down tubing, packer, cable, and sensors.

   Contingency: If unable to release the tubing and retrieve the packer, rig up a lubricator and slickline and set a plug in the lower profile nipple below the packer. Rig up an electric line and make a cut on the tubing string just above packer. The cut must be made at least 5–10 ft MD above the packer. Circulate with kill mud. Then pull the work string up the hole and proceed recovering the packer with the work string. If problems are noted, update the cement remediation plan. A cement retainer will be used to force the cement in case the packer cannot be removed.

8. Pick up the work string and trip in hole with the bit to condition the wellbore.

9. Pull up the hole and rig up the logging unit. Confirm external mechanical integrity by running one of the tests listed below in the event fiber optic cable is not functional:

   a. Pulse neutron log
   b. Noise log
   c. Temperature log

   Rig down the logging unit.

10. Set a CIBP at [redacted] Claimed as PBI

11. Trip in hole with the work string with a cement retainer to the top of plug #1. Squeeze at Claimed as PBI Circulate well, set retainer, and perform an injectivity test. Rig up equipment for cementing operations.
12. Plug #1: Mix and pump 14.8-15.5 ppg CO_2-resistant slurry to squeeze and seal the perforations in the injection zones of the Frio and Hackberry formation from Claimed as PBI Disconnect from the retainer and check the flow. Circulate heavy mud (9.5-10.5 ppg). Pull out of the hole.
13. Plug #2: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover the two-stage cementing tool Claimed as PBI Pull out above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug. Pull the string up to the next plug stage.
14. Plug #3: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover the surface casing shoe, seal 3, and seal 2 Claimed as PBI Pull out above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug.
15. Plug #4: Set a balanced plug with 14.8-15.5 ppg CO_2-resistant slurry to cover seal 1 and the base of the USDW Claimed as PBI Pull out above the plug and circulate. Wait for the cement to develop 500 psi compressive strength according to the laboratory test and tag the top of the plug. Pull the string up to the next stage.
16. Plug #5: Set a balanced plug with 15-15.5 ppg Class G cement slurry to isolate the top of the surface casing Claimed as PBI
17. Lay down the work string. Rig down all equipment and move out. Cut the casing 5 ft below the ground. Clean the cellar so a plate can be welded with the required well information.

The procedures described above are subject to modification during execution as necessary to ensure a successful plugging operation. Any significant modifications due to unforeseen circumstances will be described in the plugging report.

A.9 Bluebonnet USDW 1 Details

Table PLG- 12: Bluebonnet USDW 1 Cement Plug Information.

Claimed as PBI

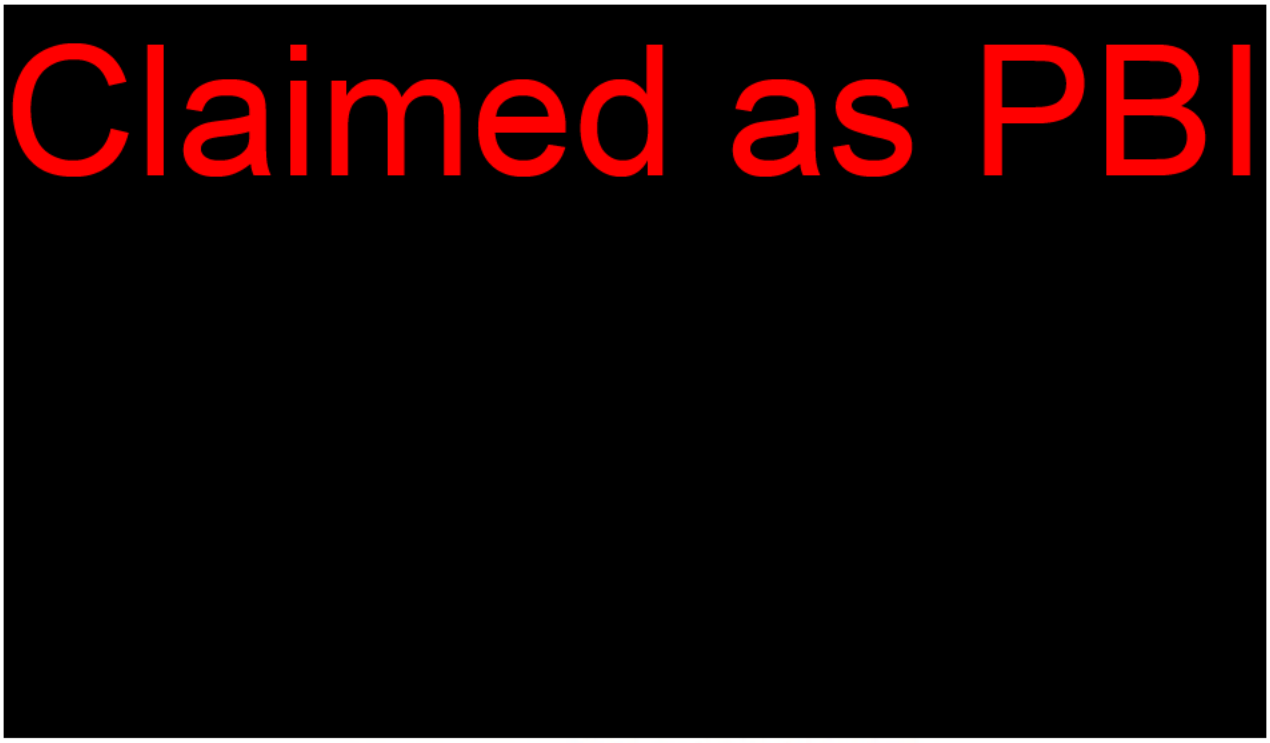

Figure PLG-12: Bluebonnet USDW 1 cement plug information.

Plugging procedure

1. Move in rig onto Bluebonnet USDW 1 site and rig up.
2. Conduct and document a safety meeting.
3. Record the surface pressure.
4. Test the pump and surface lines to 5,000 psi.
5. Kill the well if necessary.
6. Pull out of the hole and lay down tubing and pump.
7. Trip in hole with the work string to Claimed as PBI
8. Plug #1: Set a balanced plug with 15-15.5 ppg Class A or C cement slurry Claimed as PBI
9. Lay down the work string. Rig down all equipment and move out. Cut the casing 5 ft below the ground. Clean the cellar so a plate can be welded with the required well information.

The procedures described above are subject to modification during execution as necessary to ensure a successful plugging operation. Any significant modifications due to unforeseen circumstances will be described in the plugging report.

A.10 Bluebonnet USDW 2 Details

Table PLG-13: Bluebonnet USDW 2 Cement Plug Information.

Claimed as PBI

Figure PLG-13: Bluebonnet USDW 2 cement plug information.

Plugging procedure:

1. Move in rig onto Bluebonnet USDW 2 site and rig up.
2. Conduct and document a safety meeting.
3. Record the surface pressure.
4. Test the pump and surface lines to 5,000 psi.
5. Kill the well if necessary.
6. Pull out of the hole and lay down tubing and pump.
7. Trip in hole with the work string to Claimed as PBI.
8. Plug #1: Set a balanced plug with 15-15.5 ppg Class A or C cement slurry Claimed as PBI
9. Lay down the work string. Rig down all equipment and move out. Cut the casing 5 ft below the ground. Clean the cellar so a plate can be welded with the required well information.

The procedures described above are subject to modification during execution as necessary to ensure a successful plugging operation. Any significant modifications due to unforeseen circumstances will be described in the plugging report.

A.11 Bluebonnet USDW 3 Details

Table PLG-14: Bluebonnet USDW 3 Cement Plug Information.

Claimed as PBI

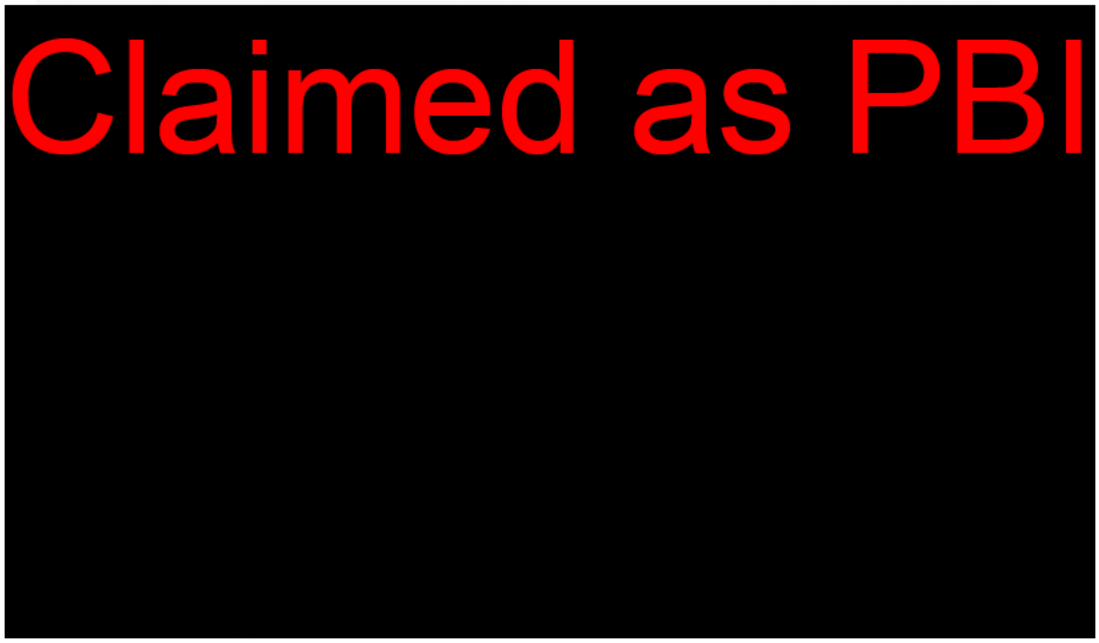

Figure PLG-14: Bluebonnet USDW 3 cement plug information.

Plugging Procedure

1. Move in rig onto Bluebonnet USDW 3 site and rig up.
2. Conduct and document a safety meeting.
3. Record the surface pressure.
4. Test the pump and surface lines to 5,000 psi.
5. Kill the well if necessary.
6. Pull out of the hole and lay down tubing and pump.
7. Trip in hole with the work string to Claimed as PBI
8. Plug #1: Set a balanced plug with 15-15.5 ppg Class A or C cement slurry Claimed as PBI

9. Lay down the work string. Rig down all equipment and move out. Cut the casing 5 ft below the ground. Clean the cellar so a plate can be welded with the required well information.

The procedures described above are subject to modification during execution as necessary to ensure a successful plugging operation. Any significant modifications due to unforeseen circumstances will be described in the plugging report.

A.12 Bluebonnet USDW 4 Details

Table PLG-15: Bluebonnet USDW 4 Cement Plug Information.

Claimed as PBI

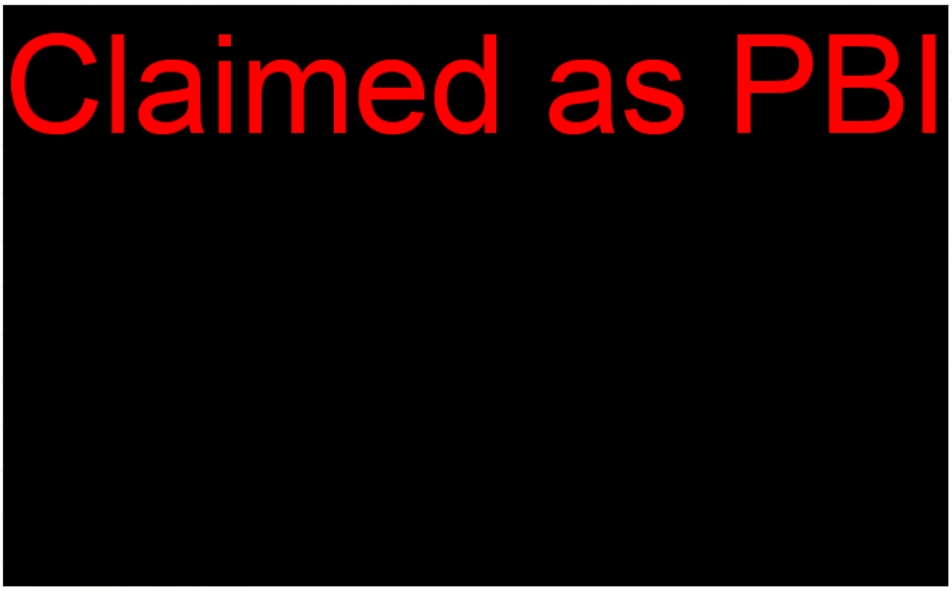

Figure PLG-15: Bluebonnet USDW 4 cement plug information.

Plugging Procedure

1. Move in rig onto Bluebonnet USDW 4 site and rig up.
2. Conduct and document a safety meeting.
3. Record the surface pressure.
4. Test the pump and surface lines to 5,000 psi.
5. Kill the well if necessary.
6. Pull out of the hole and lay down tubing and pump.

7. Trip in hole with the work string to Claimed as PBI
8. Plug #1: Set a balanced plug with 15-15.5 ppg Class A or C cement slurry Claimed as PBI.
9. Lay down the work string. Rig down all equipment and move out. Cut the casing 5 ft below the ground. Clean the cellar so a plate can be welded with the required well information.

The procedures described above are subject to modification during execution as necessary to ensure a successful plugging operation. Any significant modifications due to unforeseen circumstances will be described in the plugging report.

A.13 Bluebonnet USDW 5 Details

Table PLG-16: Bluebonnet USDW 5 Cement Plug Information.

Claimed as PBI

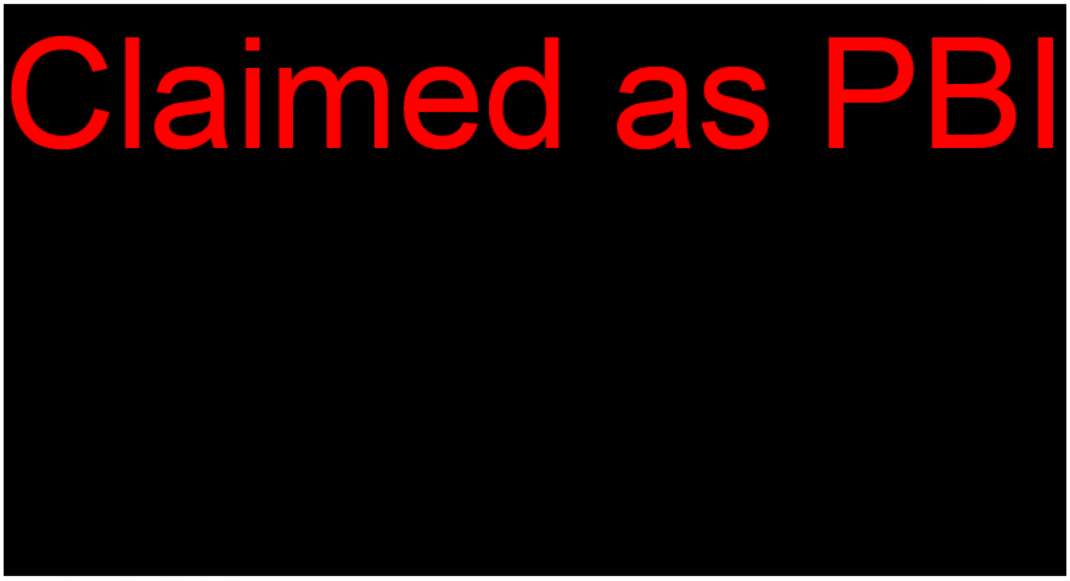

Figure PLG-16: Bluebonnet USDW 5 cement plug information.

Plugging Procedure

1. Move in rig onto Bluebonnet USDW 5 site and rig up.
2. Conduct and document a safety meeting.
3. Record the surface pressure.
4. Test the pump and surface lines to 5,000 psi.

5. Kill the well if necessary.
6. Pull out of the hole and lay down tubing and pump.
7. Trip in hole with the work string to Claimed as PBI
8. Plug #1: Set a balanced plug with 15-15.5 ppg Class A or C cement slurry Claimed as PBI
9. Lay down the work string. Rig down all equipment and move out. Cut the casing 5 ft below the ground. Clean the cellar so a plate can be welded with the required well information.

The procedures described above are subject to modification during execution as necessary to ensure a successful plugging operation. Any significant modifications due to unforeseen circumstances will be described in the plugging report.

A.14 Bluebonnet USDW 6 Details

Table PLG-17: Bluebonnet USDW 6 Cement Plug Information.

Claimed as PBI

Claimed as PBI

Figure PLG-17: Bluebonnet USDW 6 cement plug information.

Plugging Procedure

1. Move in rig onto Bluebonnet USDW 6 site and rig up.
2. Conduct and document a safety meeting.
3. Record the surface pressure.

4. Test the pump and surface lines to 5,000 psi.
5. Kill the well if necessary.
6. Pull out of the hole and lay down tubing and pump.
7. Trip in hole with the work string to [redacted]
8. Plug #1: Set a balanced plug with 15-15.5 ppg Class A or C cement slurry [redacted]
9. Lay down the work string. Rig down all equipment and move out. Cut the casing 5 ft below the ground. Clean the cellar so a plate can be welded with the required well information.

The procedures described above are subject to modification during execution as necessary to ensure a successful plugging operation. Any significant modifications due to unforeseen circumstances will be described in the plugging report.

Appendix B: Example of CO_2 Resistant Cement Formulation for Plug and Abandonment.

HALLIBURTON

Gulf of Mexico, Broussard

Lab Results- Stage 1

Job Information

Request/Slurry		Rig Name		Date	
Submitted By		Job Type	Production Casing	Bulk Plant	
Customer	Occidental Petroleum Corp.	Location		Well	

Well Information

Casing/Liner Size	5.5 in	Depth MD	8579 ft	BHST	93°C / 200°F
Hole Size	8.5 in	Depth TVD	8579 ft	BHCT	63°C / 145°F
Press.	4813 psi				

Drilling Fluid Information

Mud Supplier Name	Mud Trade Name	Density	9.5 lbm/gal

Cement Information - Tail Design ✓

Conc	UOM	Cement/Additive	Description
		CorrosaCem	Blend Name
20 - 50	%	>Prairie State Poz	Fly Ash
40 - 70	%	> Texas LeHigh A	API Class A Portland Cement
100	% BWOC	Cement Blend	
2.11	gal/sack	Field (Fresh) Water	
0.1 – 0.5	% BWOC	D-Air 5000	Defoamer
0.1 – 0.8	% BWOC	HR-5 (PB)	Retarder
0.02 – 0.1	gps	Stabilizer 434D	
1.0 - 3.0	gps	Latex 3000	Liquid SBR Latex
0.1 – 0.5	lb/sk	WellLife 1094 (PB)	Polyolefin Fiber
1.0 – 5.0	%BWOC	Microbond M	Expansion Additive

Cement Properties

Slurry Density	14.0 - 15.5	lbm/gal
Slurry Yield	1.06	ft3/sack
Water Requirement	2.11	gal/sack
Total Mix Fluid	4.19	gal/sack

Figure PLG-18: Example CO_2 resistant cement formulation for plug and abandonment. Additives such as WellLife and Microbond M may not be required for abandonment plugs.