

Revision number: 0
Plan revision date: June 2024

8 INJECTION WELL PLUGGING PLAN 40 CFR 146.92(b)

Bayou Bend East SL20220050 (BBE)

8.1 Facility Information

Facility Name: BAYOU BEND EAST SL20220050 - PHASE 1 (BBE-P1)
WELL: SL20220050 W1

Claimed as PBI

Facility Contact: Claimed as PBI
1500 LOUISIANA STREET, 11TH FLOOR
HOUSTON, TEXAS 77002

Claimed as PBI
Claimed as PBI

Site Location: GULF OF MEXICO, TEXAS STATE WATERS
HIGH ISLAND BLOCK 3, 4, 11 AND 12
JEFFERSON COUNTY, TEXAS
Claimed as PBI

8.2 Introduction

Bayou Bend CCS LLC (Operator) will conduct injection well plugging and abandonment according to the following sections.

Coordinate Reference System: NAD 83 Texas South Central

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8.3 Planned Tests or Measures to Determine Bottom-Hole Reservoir Pressure

The Operator will conduct a downhole pressure test to determine reservoir pressure prior to plugging the injection well as required by 40 CFR 146.92(a). Once downhole pressure has been determined, the Operator will calculate kill fluid density utilizing the existing permanent downhole gauge on tubing to determine bottom-hole reservoir pressure. If a measurement cannot be obtained, then acquire reservoir pressure through wireline in wellbore. The test will be run using slickline or electric-line, based on availability.

The downhole pressure acquisition procedure via logging is as follows:

- Rig up wireline unit.
- Pressure test equipment and test for leaks.

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- Run in hole with downhole gauge to record pressures.
- Pull out of hole. Confirm proper tool operation and data acquired.
- Rig down wireline unit.

8.4 Planned External Mechanical Integrity Test(s)

Prior to plugging activities, the tubing and packer will be removed. The Operator will conduct at least one of the tests listed in **Table 8-1** to verify external mechanical integrity of the injection well as required by 40 CFR 146.92(a).

A wireline log will be conveyed across the entire length of the wellbore. The data will be evaluated for anomalies that may indicate a loss of mechanical integrity when compared to baseline and historical well logs. If anomalies are detected, the plugging plan will be updated appropriately.

Table 8-1: Planned MITs.

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8.5 Information on Plugs

The Operator will use the materials and methods noted in **Table 8-2** to plug each injection well. The volume and depth of the plug or plugs will depend on the final subsurface and downhole conditions of the well as assessed during construction. The cement(s) formulated for plugging will be compatible with the carbon dioxide stream. The cement formulation and required certification documents will be submitted to the agency with the well plugging plan. The owner or operator will report the wet density and will retain duplicate samples of the cement used for each plug.

Cement plugs will be calculated considering available data, which may include casing caliper data or at a minimum nominal casing IDs. Cement simulations and testing will be performed to confirm cement designs meet the minimum height provided in the cement plugging details. Plugging details are based on a vertical well with respect to depth.

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1 **Table 8-2. Plugging details.**

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2 **8.6 Narrative Description of Plugging Procedures**

3 **8.6.1 Notifications, Permits, and Inspections**

4 In compliance with 40 CFR 146.92(c), the Operator will notify EPA Region 6 at least 60 days before
5 plugging the well and provide updated Injection Well Plugging Plan, if applicable.

6 Notification and/or additional permits related to plugging and abandonment will be obtained from the Texas
7 Railroad Commission, Texas Committee on Environmental Quality, and the United States Army Corps of
8 Engineers. All required Federal and State permits will be acquired prior to starting operations.

9 Advance notice will also be provided to the above mentioned regulatory and state agencies, and other
10 stakeholders who might be impacted by plugging and abandonment operations.

11 The procedures described in the following sections are subject to modification during execution as
12 necessary to ensure a plugging operation that protects worker safety and is effective to protect offshore

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environments. Any significant modifications due to unforeseen circumstances will be described in the plugging report. The completed plugging report with charts and all laboratory information will be sent to the regulatory agencies as required by permits. The plugging report shall be certified as accurate by the Operator and plugging contractor and shall be submitted within 60 days after plugging is completed.

8.6.2 Plugging Procedures

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1 **Figure 8-1** Proposed W1 Injector Abandonment Schematic

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