**PRE-OPERATIONAL TESTING PROGRAM**

**INSERT PROJECT NAME**

|  |
| --- |
| **INSTRUCTIONS**This template provides a suggested outline and recommendations for the pre-operational testing program for a Class VI well. Permit applicants are not required to use this template. This document does not substitute for promulgated provisions or regulations, nor is it a regulation itself, and it does not impose legally-binding requirements on the U.S. Environmental Protection Agency (EPA), states, or the regulated community. Note that references to EPA’s Class VI Rule in the code of federal regulations (CFR) are provided in this template. States with Class VI primacy have requirements that are at least as stringent as EPA’s. If your Class VI well is in a primacy state, consult your permitting authority about any additional requirements for what must be included in the plan. In this template, instructions or suggestions appear in ***blue text***. These are provided to assist with site- and project-specific plan development. These are recommendations and are not required elements of the federal Class VI Rule. Please delete the ***blue text*** and replace the yellow highlighted text before submitting your document. Similarly, please adjust the example text and tables throughout as necessary (e.g., by adding or removing rows or columns). Appropriate figures, references, etc. should also be included to support the text of the plan. For more information, see EPA’s Class VI guidance documents at <https://www.epa.gov/uic/class-vi-guidance-documents>. It is the responsibility of the owner or operator to maintain records of previous revisions to this plan. |

# Facility Information

Facility name: INSERT FACILITY NAME

 INSERT WELL NUMBER

Facility contact: INSERT CONTACT NAME/CONTACT TITLE

INSERT ADDRESS

INSERT PHONE NUMBER/EMAIL ADDRESS

Well location: INSERT CITY, COUNTY, STATE

INSERT LAT/LONG COORDINATES

# Introduction

The testing activities at the INSERT NAME OF WELL(S) described in this attachment are restricted to the pre-injection phase. Testing and monitoring activities during the injection and post-injection phases are described in the Testing and Monitoring Plan, along with other non-well related pre-injection baseline activities such as geochemical monitoring.

# Pre-Injection Testing Plan – Injection Well

The following tests and logs will be conducted during drilling, casing installation and after casing installation in accordance with the testing required under 40 CFR 146.87(a), (b), (c), and (d). The tests and procedures are described below and in the Proposed Injection Well Construction Information section of the permit application.

*[For an existing well that is being re-permitted as a Class VI well, identify any tests that have been completed and that demonstrate that the well was built according to Class VI construction standards or demonstrate that the well was engineered and constructed to meet the requirements of 40 CFR 146.86. Also identify any remaining testing to be performed.]*

## Deviation Checks

Deviation measurements will be conducted approximately every Insert interval and units during construction of the well.

## Tests and Logs

### To be performed during drilling

*[List and describe the tests to be performed, for example:*

* *Array Compensated True Resistivity Log*
* *Spontaneous Potential Logs*
* *Caliper Logs*
* *Borehole Temperature Logs*
* *Extended Range Micro Imager (XRMI) Composite Plot*
* *Extended Range Micro Imager (XRMI) Correlation Plot*
* *Compensated Spectral Natural Gamma Log*
* *Magnetic Resonance Imaging Analysis*
* *Spectral Density Dual Spaced Neutron Log*
* *Drill Stem Testing*
* *Mud Logging*
* *Fracture Studies]*

### To be performed during and after casing installation

*[List and describe the tests to be performed, for example:*

* *Radial Cement Bond Log*
* *Annular Hole Volume Plot*
* *Variable Density Logs]*

### Demonstration of mechanical integrity

Below is a summary of the MITs and pressure fall-off tests to be performed prior to injection:

## Table 1. Pre-Operational Testing Schedule Insert a description of each MIT, fall-off test, etc. and the time when the test will be performed, e.g., prior to operation.

|  |  |  |  |
| --- | --- | --- | --- |
| **Class VI Rule Citation** | **Rule Description** | **Test Description** | **Program Period** |
| **40 CFR 146.89(a)(1)** | MIT - Internal |  |  |
| **40 CFR 146.87(a)(4)** | MIT - External |  |  |
| **40 CFR 146.87(a)(4)** | MIT - External |  |  |
| **40 CFR 146.87(e)(1)** | Testing prior to operating |  |  |

INSERT OPERATOR will notify EPA least 30 days prior to conducting the test and provide a detailed description of the testing procedure. Notice and the opportunity to witness these tests/logs shall be provided to EPA at least 48 hours in advance of a given test/log.

# Pre-Injection Testing Plan – Deep Monitoring Well Insert Name/Number

*[While not required, EPA recommends that Class VI well owners or operators test deep monitoring wells (i.e., that penetrate the confining zone) in a similar manner as the testing performed on the injection well. Describe any such tests to be performed.]*

## Deviation Checks

Deviation measurements will be conducted approximately every Insert interval and units during construction of the well.

## Tests and Logs

### To be performed during drilling

*[List and describe the tests to be performed.]*

### To be performed during and after casing installation

*[List and describe the tests to be performed.]*

### Demonstration of mechanical integrity

Below is a summary of the MITs to be performed on the deep monitoring well(s), Insert Name(s)/Number(s), after installation and prior to commencing CO2 injection operations:

## Table 2. MITs Insert a description of each MIT and the time when the test will be performed, e.g., prior to operation.

|  |  |  |
| --- | --- | --- |
| **Test Name** | **Test Description** | **Program Period** |
| MIT - Internal |  |  |
| MIT - External |  |  |

Notice and the opportunity to witness the test/log shall be provided to EPA at least 48 hours in advance of a given test/log.

# Annulus Pressure Test Procedures for Injection Well:

*[Provide step-by-step testing procedures.]*

# Annulus Pressure Test Procedures for Monitoring Well Insert Name/Number:

*[Provide step-by-step testing procedures; repeat as necessary based on monitoring well design.]*

# Pressure Fall-Off Test Procedures:

*[Provide step-by-step testing procedures. As appropriate, describe general operational concerns, site-specific pretest planning activities, and procedures for conducting the fall-off test.]*