SECTION 6 – INJECTION WELL PLUGGING PLAN

TABLE OF CONTENTS:

Introduction 1
Zonal Isolation of Injection Zone / Intermediate Plugback Plan 1
Pre-Plugging Activities 1
Plugging Activities 2
Final Plugging and Abandonment 4
Pre-Plugging Activities 4
Plugging Activities 4
Plug Details 5

Figures

[redacted]

Tables

[redacted]

Introduction

This Injection Well Plugging plan for Hackberry Carbon Sequestration Well No. 001 was prepared to meet the requirements of SWO 29-N-6, **§631** [40 CFR **§146.92**]. Section 6 only provides a general description of the steps that will be taken to plug and abandon the planned stages of well development through final abandonment. Complete plugging and abandonment prognoses have been included in *Appendix J* of this application.

[redacted]

Zonal Isolation of Injection Zone / Intermediate Plugback Plan

[redacted] The general procedure for zonal isolation will include:

Pre-Plugging Activities

1. Hackberry Carbon Sequestration, LLC will comply with all reporting and notification provisions.
    a. EPA UIC Program Director will be notified 60 days in advance of planned plugging efforts. [40 CFR ***§146.92(c)***]
    b. Notice of Intent to Plug will be communicated to the LDNR by submitting Form UIC-17 with detailed plans. [SWO 29-N-6 ***§631.A.4***]
2. [redacted]
3. External mechanical integrity will be demonstrated through approved temperature logging methods described in *Section 5 – Testing & Monitoring Plan*. [SWO 29-N-6 ***§631.A.2***; 40 CFR ***§146.92(a)***]
4. Casing inspection and cement bond logs will be performed prior to plugging.

Plugging Activities

[redacted]

[redacted]

Final Plugging and Abandonment

Pre-Plugging Activities

1. Hackberry Carbon Sequestration, LLC will comply with all reporting and notification provisions.
    a. EPA UIC Program Director will be notified 60 days in advance of planned plugging efforts. [40 CFR ***§146.92(c)***]
    b. Notice of Intent to Plug will be communicated to the Louisiana DNR by submitting Form UIC-17 with detailed plans. [SWO 29-N-6 ***§631.A.4***]

[redacted]

3. External mechanical integrity will be demonstrated through approved temperature logging methods described in *Section 5 – Testing & Monitoring Plan*. [SWO 29-N-6 ***§631.A.2***; 40 CFR ***§146.92(a)***]
4. The injection well will be flushed with a buffer fluid prior to pulling injection tubing and packer. [SWO 29-N-6 ***§631.A.2***; 40 CFR **§146.92(a)**]
5. All uncemented, non-permanent components of the well will be removed.
6. Casing inspection and cement bond logs will be performed prior to plugging.

[redacted]

Plugging Activities

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Monitor Well Plugging and Abandonment

Once monitoring of ground water is no longer needed, the monitoring wells will be plugged and abandoned following Louisiana state guidelines. The details regarding the use of the monitoring wells are discussed in Section 5. Ensuring the protection of the USDW is of paramount importance in this project. The plugging of the monitoring wells will ensure that existing pathways and exposure to the USDW is restricted. The plugging process for these wells is as follows:

[redacted]

[redacted]

[redacted]