POST-INJECTION SITE CARE AND SITE CLOSURE PLAN
40 CFR 146.93(a)

RUSSELL CO_2 CAPTURE AND SEQUESTRATION

Facility Information

Facility name: Russell CO_2 Storage Complex
CSS #1

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Well location: Un-incorporated, Russell County, Kansas
Lat: 38.8855219472 Long: -98.7504253861 NAD 83 (2011)
Sec 27 T 13 S R 13 W 0' FSL – 2005' FEL

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List of Acronyms and Abbreviations

AoR = area of review CO_2 = carbon dioxide ft = feet ft bgs = feet below ground surface ft NGVD = feet elevation referenced to the National Geodetic Vertical Datum of 1929 KDHE = Kansas Department of Health and Environment PCC = PureField Carbon Capture, LLC	PISC = Post-Injection Site Care psi = pound-force per square inch UIC = Underground Injection Control USDW = Underground Source of Drinking Water US EPA = United States Environmental Protection Agency WWP = Water Well Procedure

G.1. Summary

This Post-Injection Site Care (PISC) and Site Closure plan describes the activities that PureField Carbon Capture, LLC (PCC) will perform to meet the requirements of 40 CFR 146.93. PCC is not requesting an alternative PISC timeframe at this time, thus the default 50-yr PISC timeframe applies to this GS project. PCC may propose an alternate PISC timeframe at a later date when additional field data have been collected and integrated into the computational model. Any change to the PISC timeframe will necessitate amending the permit for compliance with 40 CFR 146.93(c) and approval of the United States Environmental Protection Agency (US EPA) Underground Injection Control (UIC) Program Director.

PCC may not cease post-injection monitoring until a demonstration of non-endangerment of Underground Sources of Drinking Water (USDW) has been approved by the US EPA UIC Program Director pursuant to 40 CFR 146.93(b)(3). Following approval for site closure, PCC will plug all monitoring wells, restore the site, and submit a site closure report and associated documentation.

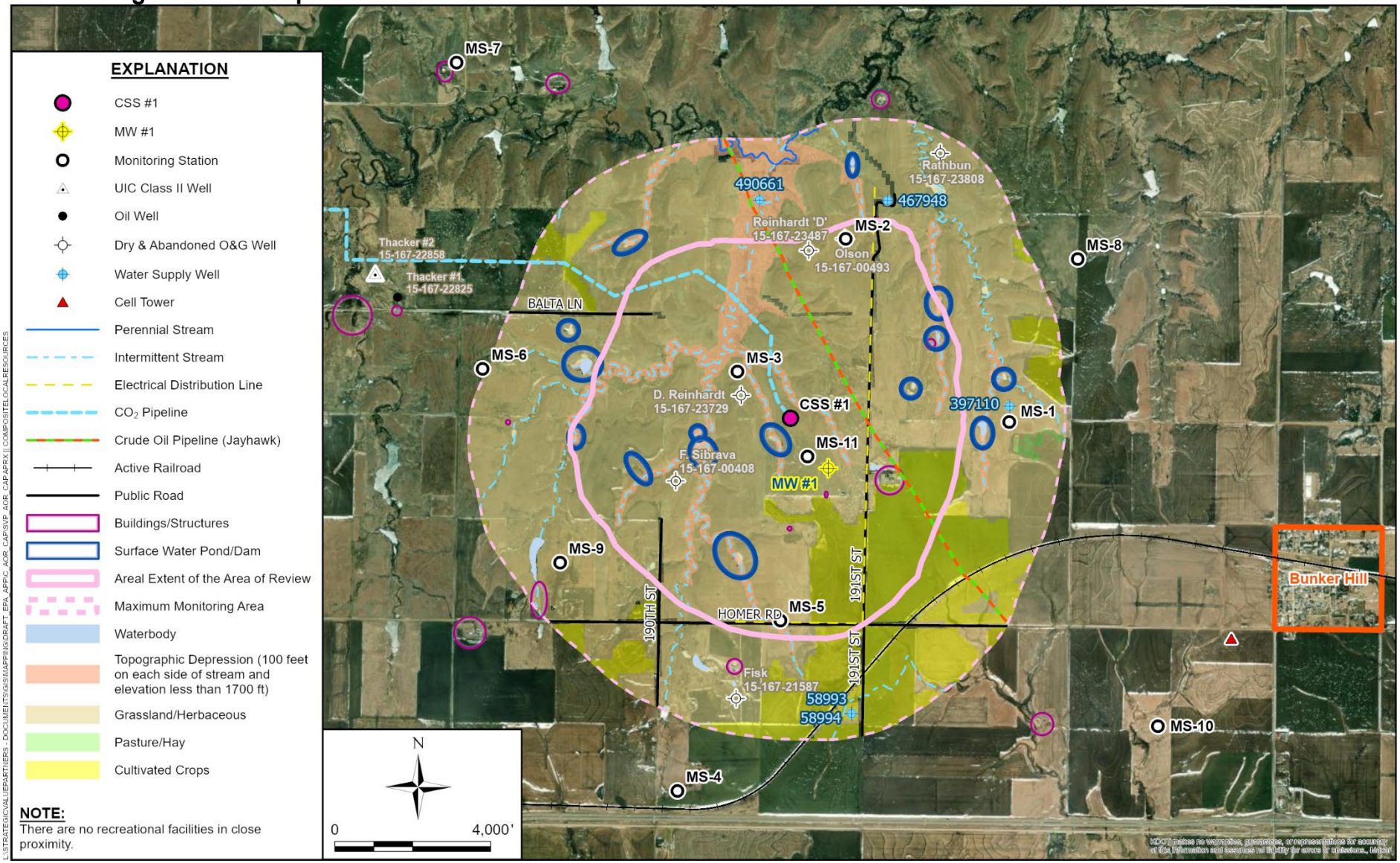
G.2. Pre- and Post-Injection Pressure Differential [40 CFR 146.93(a)(2)(i)]

The computational model for the Base Case predicts pressures across the injection zone will rapidly stabilize after cessation of injection. The CSS #1 pressure differential (injection zone pressure less the static Pre-Injection period injection zone pressure, as predicted from the computational model) falls to 100 pound-force per square inch (psi) within 2 years after cessation of injection, reaching a 10 psi pressure differential within 15 years after cessation of injection. See Section B.3.1 of the Area of Review and Corrective Action Plan for a more detailed presentation of the computational model predictions for pressure differential over time.

G.3. Predicted Position of the CO_2 Plume and Associated Pressure Front at Site Closure [40 CFR 146.93(a)(2)(ii)]

Figure G.3-1 shows the predicted areal extent of the Area of Review (AoR) at Year 62, which for this project is equivalent to the extent of the CO_2 plume at Site Closure. The computational model predicts the pressure front will not exist at Site Closure, with reservoir pressures falling below the minimum threshold pressure quickly after cessation of injection. The map in Figure G.3-1 fulfills the requirements of 40 CFR 146.93(a)(2)(ii) and was assembled pursuant to 40 CFR 146.84(c)(1).

Figure G.3-1. Map of the Predicted Maximum Extent of the CO_2 Plume and Pressure Front at Site Closure



G.4. Post-Injection Monitoring Plan [40 CFR 146.93(b)(1)]

PISC period monitoring requirements of 40 CFR 146.93(b)(1) will be met using a combination of Well Integrity testing, Groundwater Quality and Geochemical Monitoring, Plume and Pressure Front Tracking, and Additional Testing & Monitoring as described in the Testing and Monitoring Plan and the Quality Assurance Surveillance Plan. The results of all post-injection phase testing and monitoring will be submitted annually, within 60 days of the anniversary date on which injection ceased or an alternate date with the prior approval of the US EPA UIC Program Director, as described later in Section G.4.3.

CSS #1 will be re-purposed at the end of the Injection period to serve as a monitoring well during PISC. It will be plugged and abandoned at the end of PISC as described in the Injection Well Plugging Plan.

MW #1 will continue to be utilized as a monitoring well during PISC. It will be plugged and abandoned as described later in this plan.

The monitoring stations will continue to be utilized during PISC. The wells at each monitoring station will be plugged and abandoned as described later in this plan.

G.4.1. Monitoring Above the Confining Zone

Methods, parameters, and frequencies for well integrity testing of CSS #1 and MW #1 during PISC are described in the Testing and Monitoring Plan under Section E.3. Internal Mechanical Integrity and Section E.4. External Mechanical Integrity.

Methods, parameters, and frequencies for Groundwater Quality and Geochemical Monitoring during PISC are described in Section E.9 of the Testing and Monitoring Plan.

Methods, parameters, and frequencies for Soil Gas Monitoring during PISC are described in Section E.12 of the Testing and Monitoring Plan.

Methods, parameters, and frequencies for Ecosystem Stress Monitoring during PISC are described in Section E.13 of the Testing and Monitoring Plan.

Methods, parameters, and frequencies for Surface Air Monitoring during PISC are described in Section E.14 of the Testing and Monitoring Plan.

Methods, parameters, and frequencies for Seismic Monitoring during PISC are described in Section E.15 of the Testing and Monitoring Plan.

G.4.2. Carbon Dioxide Plume and Pressure Front Tracking [40 CFR 146.93(a)(2)(iii)]

Methods, parameters, and frequencies for Plume Tracking during PISC are described in Section E.10 of the Testing and Monitoring Plan.

Methods, parameters, and frequencies for Pressure Front Tracking during PISC are described in Section E.11 of the Testing and Monitoring Plan.

G.4.3. Schedule for Submitting Post-Injection Monitoring Results [40 CFR 146.93(a)(2)(iv)]

All post-injection site care monitoring data and monitoring results collected using the methods described above will be submitted to the US EPA in reports submitted annually, within 60 days of the anniversary date on which injection ceased or an alternative date with the prior approval of the US EPA UIC Program Director. The reports will contain information and data generated during the reporting period (e.g., well-based monitoring data, sample analysis, and the results from updated site models).

G.5. Alternative Post-Injection Site Care Timeframe [40 CFR 146.93(c)]

PCC is not requesting an alternative PISC timeframe at this time, thus the default 50-yr PISC timeframe applies to this GS project. PCC may propose an alternate PISC timeframe at a later date when additional field data have been collected and integrated into the computational model. For example, PCC may propose an alternate PISC timeframe during the scheduled Year 5 AoR Re-evaluation since the computational model will have been updated and history matched with early-stage Injection data at that point in time, thereby improving its predictive capabilities and reducing uncertainty in selection of an alternate PISC timeframe. Any change to the PISC timeframe will necessitate amending the permit for compliance with 40 CFR 146.93(c) and approval of the US EPA UIC Program Director.

G.6. Non-Endangerment Demonstration Criteria

Prior to approval of the end of the post-injection phase, PCC will submit a demonstration of non-endangerment of USDWs to the US EPA UIC Program Director, per 40 CFR 146.93(b)(2) and (3).

The owner or operator will issue a report to the US EPA UIC Program Director. This report will make a demonstration of USDW non-endangerment based on the evaluation of the site monitoring data used in conjunction with the project's computational model. The report will detail how the non-endangerment demonstration evaluation uses site-specific conditions to confirm and demonstrate non-endangerment. The report will include all relevant monitoring data and interpretations upon which the non-endangerment demonstration is based, model

documentation and all supporting data, and any other information necessary for the US EPA UIC Program Director to review the analysis. The report will include the following sections:

- Introduction and Overview
- Summary of Existing Monitoring Data
- Summary of Computational Modeling History
- Evaluation of Reservoir Pressure
- Evaluation of Carbon Dioxide Plume
- Evaluation of Emergencies and Other Events

G.6.1. Introduction and Overview

A summary of relevant background information will be provided, including the operational history of the injection project, the date of the non-endangerment demonstration relative to the post-injection period outlined in this PISC and Site Closure Plan, and a general overview of how monitoring and modeling results will be used together to support a demonstration of USDW non-endangerment.

G.6.2. Summary of Existing Monitoring Data

A summary of all previous monitoring data collected at the site, pursuant to the Testing and Monitoring Plan of this permit and this PISC and Site Closure Plan, including data collected during the injection and post-injection phases of the project, will be submitted to help demonstrate non-endangerment. Data submittals will be in a format acceptable to the US EPA UIC Program Director [40 CFR 146.91(e)], and will include a narrative explanation of monitoring activities, including the dates of all monitoring events, changes to the monitoring program over time, and an explanation of all monitoring infrastructure that has existed at the site. Data will be compared with baseline data collected during site characterization [40 CFR 146.82(a)(6) and 146.87(d)(3)].

G.6.3. Summary of Computational Modeling History

The results of computational modeling used for AoR delineation and for demonstration of an alternative PISC timeframe will be compared to monitoring data collected during the Injection and PISC periods. The testing and monitoring data will be used to monitor the site and update the computational model throughout the project. Data generated during the PISC period will be used to show the computational model accurately represents the storage site and can be used as a proxy to determine the plume size and properties. Model accuracy will be demonstrated by comparing the monitoring data obtained during the PISC period against the model's predicted properties (i.e., plume location, rate of movement, and pressure decay). Statistical methods will be employed to correlate the data and confirm the model's ability to accurately represent the storage site. The validation of the computational model with the large amount of data generated

over the project lifetime will be a significant element to support the non-endangerment demonstration. Further, the validation of the model at the locations where direct data collection has taken place will help to ensure confidence in the model for those locations where surface infrastructure preclude geophysical data collection and where direct observation wells cannot be placed.

G.6.4. Evaluation of Reservoir Pressure

Both direct and indirect geophysical methods will be used to evaluate the extent of the pressure front, as discussed more fully in Section E.11 of the Testing and Monitoring Plan. These data will be used to support a Non-Endangerment Demonstration per the previous discussion in Section G.6.3.

G.6.5. Evaluation of Carbon Dioxide Plume

Both direct and indirect geophysical methods will be used to evaluate the extent of the CO_2 plume, as discussed more fully in Section E.10 of the Testing and Monitoring Plan. These data will be used to support a Non-Endangerment Demonstration per the previous discussion in Section G.6.3.

G.6.6. Evaluation of Emergencies or Other Events

Mobilized formation fluids may pose a risk to USDWs. The CSS #1 pressure differential falls below the minimum threshold pressure less than 1 month after cessation of injection, as discussed in Section B.3.1 of the Area of Review and Corrective Action Plan. There is little risk of the project forcing formation fluids into any overlying USDW anywhere within the project site beyond this point in time, given the CSS #1 bottom hole pressure differential always represents the largest pressure differential within the project site. Furthermore, Section B.3.1 of the Area of Review and Corrective Action Plan also shows the CSS #1 pressure differential falls to less than 10 psi within 15 years after cessation of injection, greatly reducing risks for further un-anticipated migration of CO_2 or formation fluids beyond this point in time.

G.7. Site Closure Plan

PCC will conduct site closure activities to meet the requirements of 40 CFR 146.93(e) as described below. PCC will submit a final Site Closure Plan and notify the permitting agency at least 120 days prior to its intent to close the site. Once the US EPA has approved closure of the site, PCC will plug the monitoring wells and following completion of these efforts submit a site closure report to the US EPA. The activities, as described below, represent the planned activities based on information provided to the US EPA. The actual site closure plan may employ different methods and procedures. A final Site Closure Plan will be submitted to the US EPA UIC Program Director for approval with the notification of the intent to close the site.

G.7.1. Plugging and Abandonment of CSS #1

See the Injection Well Plugging Plan for a full description of the plugging plan for CSS #1. See Section G.7.4 for discussion on site restoration.

G.7.2. Plugging and Abandonment of MW #1

The plugging and abandonment plan for MW #1 is patterned off the plugging and abandonment plan for CSS #1. It follows similar procedures, utilizes similar materials, utilizes similar methods for volume calculations, follows similar well tests before plugging, and follows other associated activities for plugging and abandonment. See Section G.7.4 for discussion on site restoration.

The intention of the MW #1 well plugging plan is to prevent any fluid or gas migration from the injection zone, to prevent any additional crossflow as a result of the well penetrating formations above the target zone, to resist the corrosive aspects of carbon dioxide mixed with water, and to protect USDWs. Any revisions to the plan due to new information collected during logging and testing will be made after construction, logging, and testing of MW #1 has been completed, and a final well plugging plan for MW #1 will be provided to the US EPA UIC Program Director.

To prepare the well for plugging, it will first be flushed with a kill weight brine fluid. A minimum flushing of three tubing volumes will be completed without exceeding formation fracture pressure. Prior to plugging, bottom hole pressure measurements will be made, and the well will be logged and pressure tested to ensure mechanical integrity inside and outside of the casing. If mechanical integrity is determined to be lost, repairs will be made prior to continuation of plugging activities. The casing of this well was cemented during construction and will not be retrievable during abandonment. Internal tubing (if present) and packer will be removed as part of abandonment. The balanced plug placement method will be used to plug the well. If present and after flushing, the tubing and packer cannot be released, an electric line with tubing cutter will be used to cut off the tubing above the packer and the packer will be left in the well, and the cement retainer method will be used for plugging the injection formation below the abandoned packer.

Cement used for the lower most (bottom roughly 1,000 ft) cement plugs will be designed to resist any corrosive effects of contact with CO_2, carbonic acid, or other fluids or gasses associated with or generated as a direct result of the sequestration of CO_2.

PCC will record bottom hole pressure throughout the operating lifetime of the well. Kill fluid density and reservoir pressure can be determined from these measurements.

PCC will conduct at least one of the tests listed in Table G.7-1 to verify external mechanical integrity prior to plugging the monitoring well MW #1.

Table G.7-1. Potential Mechanical Integrity Tests

Test Description	Location
Temperature Log	Along wellbore using distributed temperature sensor or wireline logging
Noise Log	Wireline logging
Oxygen Activation Log	Wireline logging

PCC will use the materials and methods noted in Table G.7-2 and illustrated in Figure G.7-1 to plug MW #1. Several lifts will be used during the installation of Plug # 1 and Plug # 2 as illustrated in Figure G.7-1. The volume and depth of the plug or plugs are based upon the geology and downhole conditions of the well as assessed during construction of the onsite stratigraphic test well. The cement(s) formulated for plugging will be compatible with and resistant to the carbon dioxide stream. The cement formulation and required certification documents will be submitted to the agency with the well plugging plan. PCC will report the wet density and will retain duplicate samples of the cement used for each plug.

Table G.7-2. Preliminary Plugging Details

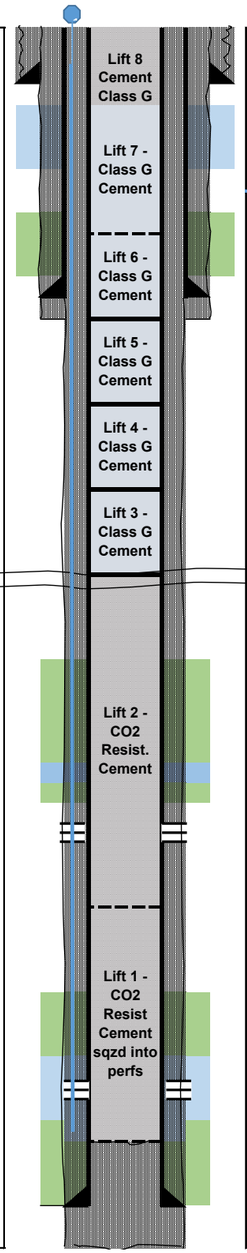
Plug Information	Plug #1	Plug #2	Plug #3
Diameter of boring in which plug will be placed, inches	6.276	6.276	6.276
Depth to bottom of tubing or drill pipe, feet	3650	2600	50
Sacks of cement to be used	194	477	10
Slurry volume to be pumped, cubic feet	41	98	2
Slurry weight, pounds per gallon	15.8	13.5	13.5
Calculated top of plug, feet	2600	50	0
Bottom of plug, feet	3650	2600	50
Calculated top of plug, Elevation ft NGVD	-850	1760	1810
Bottom of plug, Elevation ft NGVD	-1840	-850	1760
Type of cement or other material	CO_2 Resistant	Neat Cement Class G	Neat Cement Class G
Method of emplacement (e.g., balance method, retainer method, or two-plug method)	Balanced Plug	Balanced Plug	Dump

ft NGVD = feet elevation referenced to the National Geodetic Vertical Datum of 1929

Plan revision number: 2.1
Plan revision date: 9/22/2025

Figure G.7-1. MW #1 Well Plugging Plan Schematic

Geologic Unit	Depth	Hydrogeologic Role	Hole Size	Cement Details	Casing Size	Tubing, Packer, and Perfs	Notes	TVD (ft KB)	Elevation (ft MSL)
								0	1820
Loess, Carlile Sh, Greenhorn Ls, and Graneros Sh	surface - ~160'	Confining Unit (Great Plains confining system)	20"	150 sx.	16" 65# H-40 STC 40 ft.		USDW (Great Plains Aquifer System) Groundwater Monitoring Well Data TDS (mg/L): 619 to 3,900	200	1620
Dakota Formation (Upper Dakota Aquifer/Great Plains Aquifer)	~160' - 410'	Aquifer (Great Plains aquifer system)		350 sx cemented to Surface				400	1420
Kiowa Fm and Cheyenne Ss (Lower Dakota Aquifer/Great Plains Aquifer)	~410'-530'	Base of Lowermost USDW	12 1/4"		9 5/8" 36# J-55 LTC		Base of Lowermost USDW		
Nippewalla Group (Lower Permian Units)	BASE OF USDW 530'-805'	Confining Unit (Western Interior Plains confining system); some interbedded carbonates have porosity and would be considered minor aquifers					Permian Red Bed Shales / Start of Western Interior Plains Confining System	600	1220
Stone Corral (Anhydrite) - Regional Seal	805'-844'				908 ft.		Stone Corral Anhydrite - Regional Seal	800	1020
Ninnescah Shale	844'-983'		918 ft			**Control Lines**			
Wellington	983'-1,159'					1/4" TEC INC 825 (0-3,619')		1000	820
Hutchinson Salt Mbr	1,159'-1,437'				7" 26# L-80	1/4" FIMT INC 825 2X SMF 2 X MMF (0-3,619')		1200	620
Geuda Springs Shale Mbr	1,437'-1,564'					**Tubing Tally**		1400	420
Shale and Limestone Sequences	1,564'-2,944'					3 1/2" 9.30, L-80, Depth 0 - 3,597.9 (See TBG detail)		1600	220
								2800	-980
Heebner Shale Member - Secondary Confining	2,944' - 2,971'			875 sx cement TOC @ Surface				2900	-1080
Lansing & Kansas City Groups Potential Secondary Sequestration Interval	3,028'		8 3/4"					3000	-1180
Iola Limestone Member	3,115'-3,163'	First porous interval above Arbuckle				**Perfs 3,115' - 3,163'**		3100	-1280
Marmaton Group	3,297'				7" 26# 13-CR80			3200	-1380
Top Primary Upper Confining Zone	3,309'							3300	-1480
Top of Arbuckle Group	3,312'	confining unit							
Base Primary Upper Confining Zone	3,473'							3400	-1580
Gross Sequestration Zone	3,483'-3,641'	Aquifer in Western Interior Plains aquifer system				**Perfs 3,615'-3,635'**		3500	-1680
Primary Lower Confining Zone	3,682'-3,694'	confining unit			PBTD = 3695'			3600	-1780
Top Reagan Sandstone	3,694'	Aquifer						3700	-1880
Top of Quartzite Basement	3,770'	Basement confining system	3,770'		3,740'			3800	-1980



G.7.3. Plugging and Abandonment of Above Confining Zone Monitoring Wells

PCC plans to plug and abandon all of the above confining zone monitoring wells and similar sample points in accordance with the Kansas Department of Health and Environment (KDHE) procedures specified in Water Well Procedure (WWP) WWP-10 – Procedure for plugging a groundwater monitoring well (per KDHE regulation K.A.R. 28-03-7). Procedure WWP-10 will be followed to abandon the above confining zone groundwater monitoring wells, the soil gas monitoring wells, the passive seismic monitoring wells, soil efflux collars, and all their related above ground well completion equipment (e.g. protective casings) due to the similar nature of their construction.

The steps included in WWP-10 are as follows:

1. Upon approval of Site Closure by the US EPA, PCC will notify the US EPA and KDHE of the well plugging and abandonment schedule, and confirm the planned plugging activities still satisfy the applicable regulatory requirements.
2. The well/sensor point plugging must be performed by a Kansas licensed water well contractor.
3. Measure the static water level in each well/sensor point for reporting purposes.
4. Measure the total depth of the well to verify there are no obstructions that could interfere with proper plugging of the well/sensor point.
5. Use these site-specific depth measurements along with the well/point casing diameter to calculate the volume of grout needed to properly plug each well casing.
6. The well/sensor point will be filled from its total depth to approximately three feet below ground level with a KDHE approved grout (listed in KDHE regulation K.A.R. 28-30-2) using a grout tremie pipe or other KDHE approved method. If dry sodium bentonite products are to be used, they must be hydrated in accordance with manufacturer specifications.
7. Verify that the volume of the grout placed during plugging operations is equal to or exceeds the volume calculated as necessary to properly plug the well based upon the casing diameter and total depth, to ensure that no bridging of the grout material has occurred.
8. Cut off and remove the well/sensor casing at 3 feet below ground level. Backfill from the top of the remaining casing to the surface and level the surrounding area with clean compacted surface silts or clays.
9. Since these wellheads are completed above grade with outer protective casings, the protective casings and their cement pads will be removed.
10. Within 30 days of completion of the well plugging/abandonment activities, submit a completed water well plugging record (WWC-5P Form) describing the plugging of the well/sensor points to KDHE. Within 60 days of completion, PCC will also provide the US EPA with similar documentation of the well plugging and abandonment.

G.7.4. Injection Well Site and Monitoring Station Decommissioning/Restoration

PCC also plans to decommission and restore the project site and all project well sites to a condition as closely as practicably feasible to pre-injection conditions in general compliance with the K.A.R. Section 82-3-1221 – Decommissioning and abandonment of a storage facility.

The steps for the site decommissioning and restoration efforts are as follows:

1. Upon approval of Site Closure by the US EPA, PCC will notify the US EPA and KDHE of the well site and monitoring station decommissioning and restoration schedule, and confirm the planned activities still satisfy the applicable regulatory requirements.
2. All subsurface well casings shall be cut off approximately 3 feet below ground surface, and a steel plate shall be welded onto CSS #1 and MW #1 casings.
3. Clear each well site and monitoring station area of injection-related equipment, machinery, monitoring equipment, concrete base materials, and other project-related debris.
4. Fill, grade level, and restore any resulting project-related pits or excavations in the immediate vicinity of each well/monitoring station.
5. Perform any additional activities that may be required by the US EPA or KDHE, if such additional activities are determined necessary to protect human health and the environment.

G.7.5. Site Closure Report

A site closure report will be prepared and submitted within 90 days following site closure, documenting the following:

- Plugging of the verification and geophysical wells (and the injection well if it has not previously been plugged),
- Location of sealed injection well on a plat of survey that has been submitted to the local zoning authority,
- Notifications to state and local authorities as required at 40 CFR 146.93(f)(2),
- Records regarding the nature, composition, and volume of the injected CO_2, and
- Post-injection monitoring records.

PCC will record a notation to the property's deed on which the injection well was located that will indicate the following:

- That the property was used for CO_2 sequestration,
- The name of the local agency to which a plat of survey with injection well location was submitted,
- The volume of fluid injected,

- The formation into which the fluid was injected, and
- The period over which the injection occurred.

The site closure report will be submitted to the permitting agency and maintained by the owner or operator for a period of 10 years following site closure. Additionally, the owner or operator will maintain the records collected during the post-injection period for a period of 10 years after which these records will be delivered to the US EPA UIC Program Director.