

File G - Financial Responsibility Demonstrations

Note: This document contains Financial Responsibility Demonstration information for the Kansas Small Scale Test Wellington Field. The contents were extracted from the original KGS permit document that was prepared prior to the new EPA submission format introduced to KGS on June 3rd 2014. This explains why the information in this Financial Responsibility Demonstration document may contain references to figures, tables, and sub-sections in other permit sections that may not be included in this Financial Responsibility Demonstration document. Therefore, to facilitate the review process, the entire original permit application has been submitted as a separate document titled “L - Other Information Required by the UIC Program Director”, which also contains an Executive Summary, cover letter, application forms, complete table of contents, list of tables and figures, appendices, and a cross reference table which lists sub-sections that address all Class VI 40 CFR sections 146.82 – 146.93 requirements.

The Financial Responsibility Demonstration is documented in the following section:

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Section 14

Financial Responsibility

14.1 Introduction

Due to its extensive experience in subsurface oil and gas operations and strong financial position, the operator of the Wellington oil field, Berexco, is opting for the self-insurance option to demonstrate financial responsibility for the project. Headquartered in Wichita, Kansas, Berexco is an independent oil and gas exploration company prior to 1980 and operates actively in eight midcontinent states. It has also been a lead industry participant in the U.S. Department of Energy South-Central Kansas CO₂ Project (<http://www.kgs.ku.edu/PRS/Ozark/index.html>) that is engaged in research and field activities for characterizing hydrocarbon resources, developing innovative oil and gas extraction technologies, and developing climate mitigation initiatives. Berexco is a member of the Kansas Independent Oil and Gas Association (KIOGA) and has 10 active workover rigs supporting its operations. Company personnel serve on the KIOGA Board of Directors, KIOGA Executive Committee, KIOGA Natural Gas Committee, Tertiary Oil Recovery Project Advisory Board, Ad Valorem Gas Price Committee, and Wichita Petroleum Landman Association.

Berexco's financial standing, documented below, demonstrates that it has the resources to carry out CO₂ injection and storage activities related to operating, closing, and potentially remediating the Wellington site without endangering the Underground Sources of Drinking Water (USDW). Berexco is profitable, not overly leveraged, and has sufficient liquidity to successfully execute the project. In addition, all project activities are financed through a cooperative agreement between the U.S. Department of Energy, the Kansas Geological Survey, and other cost-share partners, thereby minimizing financial risks to Berexco (one of the cost-share partners). As discussed in Section 5, there is limited risk of CO₂ and subsurface fluids escaping from the injection zone and causing a risk to human health or the environment.

14.2 Project Activities and Cost Estimates

Rule 40 CFR §146.85 requires that the financial responsibility instrument(s) be sufficient to successfully accomplish the tasks associated with performing well corrective action, injection well plugging, post-injection site care, and site closure and with implementing an emergency/remedial plan. Table 14.1 presents the frequency of each of these activities and refers to the relevant section of the project master plan.

Table 14.1—Project activities that require demonstration of financial responsibility.

Activity	Rule Reference	Frequency	Activity Plan
Performing corrective action	40 CFR §146.84	None expected	The corrective action plan will be re-evaluated periodically as specified in Section 9.3.1
Plugging injection well	40 CFR §146.92	One time	Injection and monitoring well plugging plan (Section 11.5)
Post-injection site care	40 CFR §146.93	Throughout post-injection phase	Post-Injection Site Care Plan (Section 12)
Site closure	40 CFR §146.93	One time	Site Closure Plan (Section 12)
Emergency/remedial response	40 CFR §146.94	As needed	Emergency/Remedial Response Plan (Section 13)

The costs estimated to perform the activities highlighted in Table 14.1 is estimated to be \$192,000 as documented in Table 14.2. Most activities in Table 14.2 are primarily funded by the DOE, with Berexco’s contribution not exceeding \$50,000.

Table 14.2—Estimated costs to complete project activities that require demonstration of financial responsibility.

Project Task	Cost Estimate (2016)	DOE Contribution	Berexco and other Project Participant Contribution
Performing Corrective Actions on Deficient Well(s) in AoR			
No activity anticipated	\$0	\$0	\$0
Subtotal: Corrective Actions Cost	\$0	\$0	\$0
Plugging Injection Well			
Remove Surface Equipment	\$2,000	\$2,000	\$0
Run temperature log	\$3,000	\$3,000	\$0
Flush injection well with buffer fluid	\$1,000	\$1,000	\$0
Plug injection well	\$25,000	\$25,000	\$0
Plugging report	\$1,000	\$1,000	\$0
Subtotal: Injection Well Plugging Cost	\$30,000	\$30,000	\$0
Post-Injection Site Care			
Injection well pressure monitoring	\$2,000	\$2,000	\$0
InSAR	\$6,000	\$6,000	\$0
Geochemistry (Monitoring wells)	\$4,000	\$4,000	\$0
U-Tube monitoring	\$11,000	\$11,000	\$0
Corrosion monitoring	\$2,000	\$2,000	\$0
Data Analyses/Modeling	\$7,000	\$7,000	\$0
Seismic Survey	\$50,000	\$50,000	\$0
PISC Monitoring Reports to EPA	\$6,000	\$6,000	\$0
Subtotal: Post-Injection Site Care Cost	\$88,000	\$88,000	\$0
Site Closure			
Plug USDW Monitoring Wells (2)	\$2,000	\$2,000	\$0
Plug Arbuckle Monitoring Well (1)	\$30,000	\$12,000	\$18,000
Remove Surface Equipment	\$5,000	\$5,000	\$0
Site Closure Report	\$5,000	\$5,000	\$0
Subtotal: Site Closure Cost	\$42,000	\$24,000	\$18,000
Emergency and Remedial Response			
Implement shutdown	\$2,000	\$0	\$2,000
Conduct site review	\$2,000	\$0	\$2,000
Well blowout or other emergency remedial implementations	\$20,000	\$0	\$20,000
MIT	\$5,000	\$0	\$5,000
Report Corrective Action to EPA	\$3,000	\$0	\$3,000
Subtotal: ERP Cost	\$32,000	\$0	\$32,000
Total Amount Needed to Show Financial Responsibility	\$192,000	\$142,000	\$50,000

14.3 Financial Requirements for Self-Insurance

14.3 Financial Tests

To qualify for self-insurance, minimum financial coverage criteria must be met, pursuant to 40 CFR §146.85. Table 14.3 presents the required/recommended thresholds for net working capital (NWC), total assets, and tangible net worth (TNW) along with the recently audited value of the relevant financial metric for Berexco.

Table 14.3—EPA financial coverage criteria.

Financial Indicator	Berexco	Description	Requirement at 40 CFR §146.85(a)(6)(v)
Net working capital (NWC)	> \$10m	Short-term financial health (Current assets minus current liabilities)	NWC must be at least six times the sum of the current cost estimates for all required GS activities.
Total assets	> \$10m	Combined value of economic resources and all items of monetary value owned by a firm	Assets in the United States must either a) amount to at least 90 percent of total assets or b) amount to at least six times the sum of the current cost estimates for all required GS activities.
Tangible net worth (TNW)	> \$9m	The value of a company that is liquefiable, i.e., total assets (not including intangible assets) minus liabilities	Although the rule doesn't require a minimum TNW amount for GS projects, based on recent evaluation, the EPA recommends a TNW of at least \$100 million and at least six times the sum of the current cost estimates for all required GS activities.

Berexco's net working capital of \$10 million is approximately 200 times Berexco's estimated cost of \$50,000 for geologic storage activities that require demonstration of financial responsibility. This surpasses the EPA minimum threshold for net working capital specified in Table 14.3. Berexco's total assets of greater than \$10 million also satisfy the EPA criteria of being greater than six times the cost of injection and storage activities. The final Class VI rule allows for the UIC program director to specify the minimum TNW value for the operator, and we look forward to the director's determination of this metric for the Wellington project, keeping in mind that the bulk of the financial expenditures is to be borne by the DOE.

In addition to financial coverage criteria listed in Table 14.3, the financial ratio tests documented in Table 14.4 must be satisfied. Table 14.4 presents Berexco's financial ratios and shows that the company's financial metrics exceed EPA thresholds.

Table 14.4—EPA financial ratio test for purposes of self-insurance.

Type of Ratio	Financial Ratios	Threshold	Berexco Ratio
Debt-Equity	Total Liabilities/Net Worth	< 2.0	✓
Assets-Liabilities	Current Assets/Current Liabilities	> 1.5	✓
Cash Return on Liabilities	(Net Income + Depreciation + Depletion + Amortization)/ Total Liabilities	> 0.10	✓
Liquidity	(Current Assets - Current Liabilities)/Total Assets	> -0.10	✓
Net profit	Net Profit	> 0	✓

Attached in Exhibit 14.1 is a letter from Berexco's CFO, Donna Stucky, attesting to the veracity of the company's financial metrics presented in Tables 14.2 to 14.4 to meet the EPA's financial tests for self-insurance.

May 15, 2014

Kurt Hildebrandt
Drinking Water Management Branch
US-EPA Region 7
901 North 5th Street
Kansas City, KS 66101

Subject Berexco's use of financial test to demonstrate Financial Responsibility for
CO₂ sequestration at Wellington, Kansas

Dear Kurt,

I am the chief financial officer of Berexco LLC. This letter is in support of Berexco's use of the financial test to demonstrate financial strength to successfully carry out sequestration, monitoring, abandonment, and emergency remedial activities. I hereby attest to the following:

1. Berexco is the owner or operator of the following injection well for which financial assurance for injection well plugging, post injection site care and site closure, and emergency remedial response is demonstrated through the financial test. The current cost estimate for injection well plugging, post injection site care and site closure, and emergency remedial response is provided below:

Injection Well Name: KGS 1-28

Address: Latitude 37.319485, Longitude -97.4334588

Township 31S, Range 1W, Section 28 NE SW SE SW

Berexco's share of the cost of injection well plugging, post injection site care and site closure, and emergency remedial response is estimated to be \$50,000:

2. Berexco guarantees, through the corporate guarantee, the corrective action, injection well plugging, post injection site care and site closure, and/or emergency and remedial response of no Class VI injection wells owned or operated by any subsidiaries of this firm.

3. In states where EPA is not administering the financial requirements, Berexco, as owner or operator or guarantor, is demonstrating financial assurance for no Class VI injection wells through the use of a test equivalent or substantially equivalent to the financial test.

4. Berexco is the owner or operator of no Class VI injection wells for which financial assurance for corrective action, injection well plugging, post injection site care and site closure, and/or emergency and remedial response is not demonstrated either to EPA or a state through the financial test or any other financial assurance instrument.

Berexco is not required to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of Berexco ends on December 31st. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended December 31st 2011.

Financial Coverage Criteria	
1. (a) Berexco's share of the cost in current dollars for injection well plugging, post injection site care and site closure, and emergency and remedial response	\$ 50,000
(b) Sum of the company's financial responsibilities currently met using the financial test or corporate guarantee, including CERCLA and RCRA	\$ 0
(c) Total of lines a and b	\$ 50,000
2. Tangible net worth	> \$ 10 M
3. Current assets	> \$ 10 M
4. Current liabilities	< \$ 1 M
5. Net working capital (line 3 minus line 4)	> \$ 9 M
6. Total assets	> \$ 10 M
7. Total assets in U.S.	> \$ 10 M
	Yes No
8. Is line 2 at least \$100 million?	x
9. Is line 2 at least 6 times line 1(c)?	x
10. Is line 5 at least 6 times line(c)?	x
11. Is line 7 at least 90% of Line 6? If not, complete line 12.	x
12. Is line 7 at least 6 times line 1(c)?	x

Financial Ratio Test		
1. Total liabilities	< \$ 1 M	
2. Net worth	>\$ 10 M	
3. Current assets	>\$ 10 M	
4. Current liabilities	<\$ 1 M	
5. Net working capital (line 3 minus line 4)	>\$ 9 M	
6. The sum of net income plus depreciation, depletion, and amortization	>\$ 1 M	
7. Total assets	>\$ 10 M	
	Yes	No
8. Is line 1 divided by line 2 less than 2.0?	X	
9. Is line 3 divided by line 4 greater than 1.5?	X	
10. Is line 6 divided by line 1 greater than 0.1?	X	
11. Is line 5 divided by line 7 greater than -0.1?	X	
12. Is net profit greater than 0?	X	

I hereby certify to the veracity of the financial information provided above as of the date shown immediately below.

Signature: 

Name: Donna M. Stucky, CPA

Title: Chief Financial Officer

Date: May 15, 2014

14.4 Future Financial Obligations

A requirement of 40 CFR §146.85(c) for self-insurance is that financial information and estimated costs must be updated and submitted annually for the UIC program director’s review to ensure continued adequacy of financial demonstration due to inflation, relative price changes, or changes in technology. Updated cost estimates are also due after any amendments to the Area of Review and Corrective Action Plan, the Injection Well Plugging Plan, the Post-Injection Site Care and Site Closure Plan, or the Emergency and Remedial Response Plan. Table 14.5 presents the conditions under which cost updates and financial responsibility documents will be revised and submitted to the Region 7 UIC program director.

Table 14.5—Future financial cost and financial requirements submission plans.

Timeframe/Condition	Berexco/KGS Submission Plans
Annually	Submit updated financial responsibility demonstration
Annually	Submit an updated detailed written estimate of the cost of performing corrective action on wells in the AoR, plugging the injection well, post-injection site care and site closure, and emergency and remedial response. Adjust cost estimate for inflation
Within 60 days of any amendments to required project plans	Submit written updates of adjustments to cost estimate
During the active life of the project, and 60 days after director has approved a request to modify required project plans	If change in plans increases cost, revise cost estimate, which will be adjusted for inflation as specified at 40 CFR §146.85(c)(1)
Within 60 days after the current cost estimate increases to an amount greater than the face amount of self-insurance	Increase face amount of coverage up to an amount at least equal to the current cost estimate and submit evidence of such increase to the UIC program director, or obtain other financial responsibility instruments to cover the increase
In the event of adverse financial conditions such as bankruptcy; within 10 days of commencement of Title 11 filing	Notify director by certified mail that adverse financial conditions may affect ability to carry out injection well plugging and post-injection site care and site closure
Within 60 days of director notification that original demonstration is no longer adequate for required project phases	The owner or operator must provide adjustment of the cost estimate to the UIC program director

14.5 Adverse Conditions

Berexco will notify the EPA director by certified mail of any adverse financial conditions such as bankruptcy that may affect the ability to carry out any of the proposed post-injection site care, injection well plugging, and site closure activities listed in Table 14.2.