Request for Additional Information

[Shell Project El Camino (R06-LA-0001)] - [Request #A-1]

Instructions: Populate the "Response" column with answers/responses to each comment/question below, then upload the completed responses to Field #3 in the "Information Requests" reporting module of the GSDT. If necessary, upload attachments or references in Field #4 of the module and/or update information within other GSDT modules. ***To allow reviewers to quickly locate and review changes/updates, clearly identify the location within the application where edits for each response were made (e.g., Site Characterization, Section 2.7.4, p. 53, updated paragraph 2).***

Item #	Associated Regulation(s)	Comment/Question	Response **NOTE: Revised text is highlight in gray**
General			
1	40 CFR 146.82(a)(21)	**Comment:** Please provide a digital copy of all references cited throughout the application. One folder/zip file containing references for all application sections/modules is acceptable. For books or similar hardcopy references, a scanned copy of the data or referenced section (e.g., a specific table, a single chapter) along with a copy of the cover and title page is sufficient.	Digital copies of references cited are provided. Please note that all references are submitted as *Business Confidential Information (CBI)* and several references are only available for purchase (a list is provided). The reference lists of Module A (pp. 150-165) and Module B (pp. 84-86) have been revised for clean-up items (e.g. incorrect spelling, page numbers, journal names, etc.).
Project Information/Site Characterization			
2	40 CFR 146.82(a)(2)	**Background:** Figure 2-67 ("Water Well Map with a 6-Mile Radius of Investigation") appears to be the most complete map of the project area, including the AOR, injection wells, artificial penetrations (APs; includes both water and oil/gas wells), roads, surface water bodies, etc. However, this and other maps appear to be missing the location(s) of any subsurface cleanup sites (e.g., Superfund/CERCLA, hazardous waste/RCRA, brownfields, leaking underground storage tanks), and no narrative discussion is included indicating that searches for such sites have been conducted and no sites located. **Comment:** Please update the narrative and map (if necessary) to include details of searches for subsurface cleanup sites and the results of those searches, including if no such sites were identified.	Created Figure 2-67A – Site Characterization Map (*submitted CBI*). This map includes all information required per 40 CFR 146.82(a)(2). Site Characterization narrative Section 2.6.5, pp. 99-100, has been revised to include this figure. Appendix F presents the methods and results of the investigation of subsurface cleanup sites (*submitted CBI*).
3	40 CFR 146.82(a)(20)	**Background:** A list of contacts for states, tribes, and territories within the AOR is not provided. The application indicates that the project is not within tribal boundaries, but Louisiana state contacts are still required.	Table 2-A has been created listing all elected officials representing St. Helena Parish. NOTE: Greensburg (blue) and Montpelier (green) are the closest cities to the delineated Area of Review.

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		Comment: Please update the application to include contacts for the state of Louisiana.	Section 2.6.5 of Site Characterization narrative, p. 100, first paragraph, has been revised to include this table.
4	40 CFR 146.82(a)(4), 40 CFR 146.84(c)(2), 40 CFR 146.82(a)(21)	**Background:** Table 2-9 of the Site Characterization tables ("2.0 Site Characterization _TABLES_Rev 0_Nov 2022.pdf") contains information about water wells within the AOR, including total depth (TD), status, etc. However, no hardcopy (pdf) records were provided for any of the water wells. To properly evaluate the AOR and Corrective Action plans, EPA must independently assess each AP, including whether it penetrates the injection and/or confining zone(s). To do so, the application must contain hardcopy (pdf) records for all APs located within the AOR regardless of AP type. (EPA does note that records for oil and gas wells have been provided in "Appendix G – AP Records" of the AOR/Corrective Action Plan module.) **Comment:** Please provide hardcopy (pdf) records for all APs within the AOR regardless of TD or status, including all water wells. Additionally, please provide records for each AP in an individual pdf file (i.e., one AP's records per pdf) rather than combining records for multiple or all APs into one pdf file. (**See also Item 6 below**)	"In-Person" record search was conducted at LDNR offices in Baton Rouge. All available AOR Artificial Penetration records have been included in this response as an amendment to Appendix G of Module B (*submitted CBI*).
AOR/Corrective Action			
5	40 CFR 146.82(a)(4), 40 CFR 146.84(c)(2)	**Background:** Table 2.9 in "2.0 Site Characterization _TABLES_Rev 0_Nov 2022.pdf" contains information on water wells, while Table 7-1 in "B _AoR and CA Plan - SHELL _FINAL_CBI.pdf" contains information on oil and gas wells. However, neither table provides location information (i.e.., latitude and longitude) for APs that penetrate the injection and/or confining zones. **Comment:** Please update, at a minimum, Table 7-1 to include location information for all APs identified within the delineated AOR that penetrate the injection and/or confining zones. Though not required since no water wells penetrate the confining zone, the addition of location information to Table 2-9 for water wells within the delineated AOR would also be helpful.	Created Table 2-9A (*submitted CBI*) containing water wells within the delineated AOR to include previous records and adding lat/long location information. Revised Table 7-1(*submitted CBI*) to include lat/long location information.
6	40 CFR 146.82(a)(4), 40 CFR 146.82(a)(21), 40 CFR 146.84(c)(2),	**Background:** The narrative in Section 7.0 (p. 75/88) of the AOR/Corrective Action Plan ("B _AoR and CA Plan - SHELL _FINAL_CBI.pdf") describes procedures for identifying all APs within the delineated AOR as well as procedures for identifying all records for APs identified within the AOR. This narrative includes a discussion of the potential for state records to exist outside of LDNR's online SONRIS database, and LDNR has previously	A thorough search within LDNR's hardcopy records has been completed. Section 7.1.1.1 Data Sources (p. 76) of the AOR/Corrective Action Plan has been revised to include this procedure. Table 7-1A (*submitted CBI*) (a duplicate of Module A – Table 2-9A (*submitted CBI*) for ease of review) was created to

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	40 CFR 146.84(d)	confirmed to EPA that AP records do exist outside of SONRIS, including on microfilm/microfiche only accessible via manual searches at LDNR's offices. Although Shell has utilized numerous resources to identify AP records, including both SONRIS and multiple commercial databases, Shell has confirmed that no additional searches of LDNR records outside of SONRIS, including microfilm/microfiche, were conducted. EPA recognizes and appreciates that Shell has conducted records searches of multiple databases in addition to SONRIS. However, to consider an application complete, EPA also requires that searches be conducted of LDNR's microfilm/microfiche data, and all identified records be included with an application. Additionally, section 2.6.5 of the Project Narrative (p. 103/167) indicates that only SONRIS was used to identify water wells. However, microfilm/microfiche searches should include both oil/gas wells as well as water wells, regardless of TD and whether the APs penetrate the injection and/or confining zones. **Comment:** Please conduct searches of LDNR's microfilm/microfiche records for all APs within the delineated AOR, including both oil/gas wells and water wells. Update the narrative to describe procedures used to identify and search microfilm/microfiche records, and include any newly identified records in the application submittal.	provide a tabulation of water wells within the delineated AoR. Site Characterization narrative Section 2.6.5, pp. 99-100, has been revised to include an in-person search of LDNR's records file room. Newly identified records have been submitted with these NOD Responses as an addendum to Appendix G of Module B (*submitted CBI*). **SEE #4 ABOVE**
Injection Well Construction			
7	40 CFR 146.86(c)(3)(vi)	**Background:** The well construction tables ("5.0 Well Construction_TABLES_Rev 0_Nov 2022.pdf") as well as Figures 5-1 and 5-2 provide information on the length and diameter of casing strings as well as the length and other properties of tubing for each well, but no tubing diameters appear to be included in either the tables or the figures. **Comment:** Please update tables, figures, and narratives, as applicable, to indicate tubing diameters for each injection well.	Tables 5-4 and 5-5 of Module A Section 5.0 have been revised to include tubing diameter. Figures 5-1 and 5-2 have been revised and now include tubing diameter.
8	40 CFR 146.82(a)(11), 40 CFR 146.88(e)	**Background:** Figures 5-1 and 5-2 contain well schematics for the two injection wells, and the project narrative (p. 144/167) states that, "During injection operations, continuous measurements will be taken at the wellhead for injection pressure, rate, volume, and temperature of the CO2 stream [40 CFR 146.88(e)(1)]."	Shell understands and appreciates the EPA's recommendation to include these devices on the well construction schematics. We plan to provide full illustrations of the continuous recording and automatic shut off devices on our final completion schematics, which will be submitted upon final completion of our proposed injection

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		Comment: While not required, EPA recommends that continuous recording and automatic shutoff devices also be illustrated on any well construction schematics.	wells. We trust that this future plan will suffice to meet your current recommendation.