

PROJECT REVIEW REPORT

This project review report includes findings raised during Verra’s review of the project specified below. The VVB must address the findings before the project request can be considered for approval by Verra. The project review report will be made publicly available on the Verra Registry. Confidential information may be provided in separate attachments.

Project ID	3094
Project Name	REDUCING CARBON EMISSIONS ON I-64 CAPACITY IMPROVEMENT PROJECT WITH THE USE OF FSB AND EMULSION ASPHALT MIXTURES
Review Type	Registration and Verification
Program(s)	VCS Program
Verification Period	17/04/2018 to 23/09/2021
Project Proponent	Global Emissionary, LLC
Methodology	VM0039 “Methodology for Use of Foam Stabilized Base and Emulsion Asphalt Mixtures in Pavement Application”, Version 1.0
VVB	Ruby Canyon Environmental Inc.
Assessment Criteria	VCS Standard Version 4.5
Date of First Issue	15 November 2023
Review Conclusion	Closed
Date of Final Issue	04 January 2024

FINDINGS

#	Finding Description	VVB Response	Status
1	Missing table in Section 1.1 of JPD-MR		
	<p><u>Issue</u> Section 1.1 of the Joint Project Description and Monitoring Report (JPD-MR) does not include Table as required by Section 1.1 of the VCS <i>Joint Project Description and Monitoring Report Template v.4.2</i>.</p> <p><u>Action item</u></p> <ol style="list-style-type: none"> The VVB must ensure that the project proponent includes the table in Section 1.1 in the JPD-MR. <p><u>Program rule(s) or methodology section</u> <i>VCS Joint Project Description and Monitoring Report Template v.4.2</i>, Section 1.1</p>	<p>Round 1</p> <p><u>VVB Response</u> RCE confirmed that the table was included in Section 1.1 in the JPD-MR.</p> <p><u>Verra Response</u> Section 1.1 of the JPD-MR has been updated to include the table per the template. This finding is now closed.</p>	Closed
2	Missing eligibility criteria set		
	<p><u>Issue</u> Section 1.4 of the JPD-MR does not include the eligibility criteria for the new project activity instances to be included related to additionality and location.</p> <p><u>Action item</u></p> <ol style="list-style-type: none"> The VVB must ensure that the project proponent includes all the eligibility criteria as required by Sections 3.6.16(4) and (5), and 3.6.17(1) and (2) of the VCS <i>Standard v.4.4</i>. The VVB must further validate this information and update the joint validation and verification report (JVR-VR) as needed. <p><u>Program rule(s)</u></p>	<p>Round 1</p> <p><u>VVB Response</u> RCE confirmed that all eligibility criteria for new Project activity instances required by VCS Standard v4.4 are included in Section 1.4 of the JPD-MR.</p> <p>RCE included additional language in Section 3.1 in the JVR-VR specific to eligibility criteria.</p> <p><u>Verra Response</u> Section 1.4 of the JPD-MR and Section 3.1 of the JVR-VR have been updated to include the complete eligibility criteria. This finding is now closed.</p>	Closed

<p>VCS Joint Project Description and Monitoring Report Template v.4.2, Section 1.4 VCS Joint Validation and Verification Report Template v.4.2, Section 3.1 VCS Standard, v4.4, Sections 3.6.16 and 3.6.17</p>		
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3 Further information and assessment on project instance compliance with regulatory frameworks		
<p><u>Issue</u> Section 1.14 of the JPD-MR does not indicate which are the specific regulations/construction specifications that the first project activity instance complies with and the evidence to demonstrate such compliance.</p> <p><u>Action item</u></p> <ol style="list-style-type: none"> The VVB must ensure that the project proponent identifies which are the specific regulations/construction specifications that the first project activity instance complies with and the evidence to demonstrate such compliance in Section 1.14 of the JPD-MR. The VVB must ensure that Section 3.1 of the JVR-VR is updated to identify, discuss and justify the conclusion for the project’s compliance with applicable laws, statutes and other regulatory frameworks. <p><u>Program Rule(s)</u> VCS Joint Project Description and Monitoring Report Template v.4.2, Sections 1.14 VCS Joint Validation and Verification Report Template v.4.2, Section 3.1</p>	<p>Round 1</p> <p><u>VVB Response</u> RCE confirmed that Section 1.14 of JPD-MR has been revised accordingly. As stated in the JPD-MR, no applicable laws or mandates for the incremental level of activity (required for regulatory surplus) exist but general specifications and applicability to the roadway owners is applicable. RCE reviewed Project documents to confirm general conformance with construction specifications. The design-build quality control plan was reviewed and page 6 states that DMY Consulting was on site to perform field observations and testing throughout the project.</p> <p>RCE added language to JVR-VR Section 3.1 justifying our conclusion that the Project is in compliance with applicable laws and regulations.</p> <p><u>Verra Response</u> Section 1.14 of the JPD-MR has been updated to confirm that no applicable laws or mandates exists. Further, more information is given about specifications and compliances the project needs to meet. Section 3.1 of the JVR-VR has also been updated to state the same. This finding is now closed.</p>	<p>Closed</p>

4 Insufficient information on commercially sensitive information		
<p><u>Issue</u></p>	<p>Round 1</p> <p><u>VVB Response</u></p>	<p>Closed</p>

	<p>Section 1.18 of the JPD-MR and Section 3.1 of the JVR-VR do not contain sufficient information on the commercially sensitive information. Further, non-redacted documents have not been submitted for review.</p> <p><u>Action item</u></p> <ol style="list-style-type: none"> 1. The VVB must ensure that Section 1.18 of the JPD-MR is updated to describe all the commercially sensitive items that have been redacted. 2. The VVB must ensure that Section 3.1 of the JVR-VR is updated to assess how the redacted, commercially sensitive items comply with the <i>VCS Standard, v4.4</i>, Sections 3.5.2 and 3.5.3, and <i>VCS Program Definitions, v4.2</i>, 3. The VVB must ensure that a private project description and documents (i.e., non-redacted documents) are submitted to Verra. <p><u>Program Rule(s)</u> <i>VCS Standard, v4.4</i>, Sections 3.5.2 and 3.5.3 <i>Registration and Issuance Process, v4.3</i>, Section 4.2.11 <i>VCS Program Definitions, v4.2</i>, “Sensitive Information”</p>	<p>RCE confirmed Section 1.18 has been revised. Please note that all information was provided to Verra in the original submission (there were no redactions). RCE stated in the last paragraph of Section 3.1 that no commercially sensitive information was withheld from the project record.</p> <p><u>Verra Response</u> Section 1.18 of the JPD-MR and Section 3.1 of the JVR-VR have been updated to confirm that the project documents do not contain any commercially sensitive information. Thus, no additional documents are required. This finding is now closed.</p>	
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<p>5 Further assessment on start date</p>			
	<p><u>Issue</u> Section 3.1 of the JVR-VR states that the project start date has been confirmed as 17 April 2018, however, does not indicate the evidence checked in order to confirm that no GHG emission reductions occurred before that date.</p> <p><u>Action item</u></p>	<p>Round 1</p> <p><u>VVB Response</u> RCE confirmed that Section 1.16.2 of JPD-MR was revised to include the following statement, “The project activities are not currently eligible to participate in any other such programs. No double counting is ensured by contractual agreements with the partner contractors. Evidence of the contractual agreements will be provided to the VVB for all current and future contractor partnerships.” \Current contractual agreements were provided to RCE.</p>	<p>Closed</p>

	<p>1. The VVB must further elaborate how the project start date has been confirmed and indicate which was the evidence checked in Section 3.1 of the JVR-VR.</p> <p><u>Program Rule(s)</u> VCS Joint Validation and Verification Report Template v.4.2, Section 3.1</p>	<p>RCE added language to Section 3.1 of the JVR-VR describing how start date was assessed and how we confirmed that no GHG emission reductions occurred before the start date.</p>	
		<p><u>Verra Response</u> Section 3.1 of the JVR-VR has been updated to include more information about how the VVB confirmed the project start date. This finding is now closed.</p>	

6 Further information on local stakeholder consultation			
	<p><u>Issue</u> Under Section 2.2 of the JPD-MR, there is no information on the results of the on-going communication during the monitoring period.</p> <p><u>Action Required</u></p> <ol style="list-style-type: none"> 1. The VVB must ensure that the project proponent includes in Section 2.2 of the JPD-MR all the information required above. 2. The VVB must validate this information and update Section 3.2.1 of the JVR-VR as needed. <p><u>Program Rule(s)</u> VCS Joint Project Description and Monitoring Report Template v.4.2, Sections 2.2 VCS Joint Validation and Verification Report Template v.4.2, Section 3.2.2</p>	<p>Round 1</p> <p><u>VVB Response</u> RCE confirmed that language was added to Section 2.2, to the JPD-MR stating, “To date, Global Emissionary has not received any comments on the project”.</p> <p>RCE added language to Section 3.3.2 Local Stakeholder Consultation of the JVR-VR.</p>	Closed
		<p><u>Verra Response</u> Section 2.2 of the JPD-MR has been updated to confirm no comments have been received during this monitoring period. The VVB confirms this in Section 3.3.2 of the JVR-VR. This finding is now closed.</p>	

7 Incomplete information on no net harm and environmental impact assessment			
	<p><u>Issue</u></p>	<p>Round 1</p> <p><u>VVB Response</u></p>	Closed

<ol style="list-style-type: none"> Section 2.1 of the JPD-MR states that there are no potential negative impacts identified, however Section 2.3 mentions impacts and avoidance, minimization and mitigation techniques which have not been listed. Section 2.3 of the JPD-MR does not summarize the environmental impact assessment. <p><u>Action Required</u></p> <ol style="list-style-type: none"> The VVB must ensure Section 2.1 of the JPD-MR is updated to describe any potential negative environmental and socio-economic impact of the project activity and the steps taken to mitigate them in the project design and throughout the first monitoring period. The VVB must validate this information and update Section 3.2.1 of the JVR-VR. <p><u>Program Rule(s)</u> <i>VCS Joint Project Description and Monitoring Report Template v.4.2, Sections 2.1</i> <i>VCS Joint Validation and Verification Report Template v.4.2, Section 3.2.1</i></p>	<p>RCE confirmed that Section 2.1 has been revised in its entirety, and Section 2.3 has been revised to summarize the FEIS results.</p> <p>RCE updated Sections 3.3.1 and 3.3.3 of the JVR-VR to reference the FEIS that was reviewed and confirmed no net harm.</p> <p><u>Verra Response</u> Sections 2.1 and 2.3 of the JPD-MR have been updated to describe the potential negative impacts and mitigation techniques, and summarize the environmental impact assessment, respectively. Sections 3.3.1 and 3.3.3 of the JVR-VR have been updated with the corresponding assessment. This finding is now closed.</p>	
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8 Missing proof of project ownership		
<p><u>Issue</u> Section 1.7 of the JPD-MR does not provide any reference to proof the ownership of the project by the PP.</p> <p><u>Action Required</u></p> <ol style="list-style-type: none"> The VVB must ensure that the project proponent includes the proof that demonstrates the project ownership in Section 1.7 of the JPD-MR. 	<p>Round 1</p> <p>VVB Response</p> <p>RCE confirmed that a reference to the legal agreement title (that RCE reviewed) has been added to section 1.7 of the JPD-MR.</p> <p>RCE states this in Section 3.1 “Project Details”: RCE reviewed this contract and confirmed that it contains sufficient wording</p>	<p>Closed</p>

	<p>2. The VVB must validate this information and update the JVR-VR as needed.</p> <p><u>Program Rule(s)</u> <i>VCS Joint Project Description and Monitoring Report Template v.4.2, Section 1.11</i> <i>VCS Joint Validation and Verification Report Template v.4.2, Section 3.1</i></p>	<p>clearly stating that the Project Proponent has the legal right to control and operate the project.</p> <p><u>Verra Response</u> Section 1.7 of the JPD-MR has been updated to reference the legal agreement demonstrating the project ownership. This finding is now closed.</p>	
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9 Missing information in project boundary			
	<p><u>Issue</u> Section 3.3 of the JPD-MR does not include a diagram of the system and GHG emission sources in the project boundary.</p> <p><u>Action item</u></p> <ol style="list-style-type: none"> The VVB must ensure that Section 3.3 of the JPD-MR includes a diagram of the equipment, systems, flows of mass and energy, and GHG emission sources identified in the project boundary. The VVB must validate this information and update the JVR-VR as needed. <p><u>Program Rule(s)</u> <i>VCS Joint Project Description and Monitoring Report Template v.4.2, Section 3.3</i> <i>VCS Joint Validation and Verification Report Template v.4.2, Section 3.4.3</i></p>	<p>Round 1</p> <p><u>VVB Response</u> RCE validated the Project diagram to be accurate and has been moved from Section 1.11 to Section 3.3 of the JPD-MR.</p> <p>RCE added language to Section 3.4.3 confirming the Project diagram to be accurate.</p> <p><u>Verra Response</u> Section 3.3 of the JPD-MR has been updated to include a diagram of the system and GHG emission sources in the project boundary. This finding is now closed.</p>	<p>Closed</p>

10 Insufficient information to demonstrate and assess additionality			
	<p><u>Issue</u></p> <ol style="list-style-type: none"> Section 3.5 of the JPD-MR does not include sufficient information on how the emission intensity for the 	<p>Round 1</p> <p><u>VVB Response</u> RCE confirmed Step 2 of Section 3.5 was revised to further explain that the calculation process is presented in Sections</p>	<p>Closed</p>

	<p>project scenario was determined.</p> <ol style="list-style-type: none"> Section 3.4.5 of the JVR-VR does not include sufficient information on how the VVB assessed the regulatory surplus and the emission intensity for the project scenario (against the performance benchmark). <p><u>Action Required</u></p> <ol style="list-style-type: none"> The VVB must ensure Section 3.5 of the JPD-MR is updated to include sufficient information on how the emission intensity for the project scenario was determined. The VVB must update Section 3.4.5 of the JVR-VR to include more information on how the VVB assessed the regulatory surplus and the determination of the project emission intensity. <p><u>Program Rule(s)</u> VM0039, v.1.0, Section 6 <i>VCS Joint Project Description and Monitoring Report Template, v4.2, Section 3.5</i> <i>VCS Joint Validation and Verification Report Template, v4.2, Section 3.4.5</i></p>	<p>5.2.1 and 5.2.2. Further, all calculations for the entire monitoring period are included in Appendix A. Table 6 demonstrates that the performance benchmark can be achieved to a level at least equivalent to the performance benchmark metric.</p> <p>RCE updated language in Section 3.4.5 to describe how RCE assessed regulatory surplus and emissions intensity for the Project scenario.</p> <p><u>Verra Response</u> The VVB has shared the emission intensity calculations in Appendix A, which demonstrates the project’s adherence to the performance benchmark. Further, the VVB has updated Section 3.4.5 of the JVR-VR to assess the emission intensity calculations and regulatory surplus. This finding is now closed.</p>	
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11 Insufficient information describing methodology deviation			
	<p><u>Issue</u></p> <ol style="list-style-type: none"> Section 3.6 of the JPD-MR does not include sufficient information to describe the methodology deviation and demonstrate how the deviation does not impact conservativeness. Section 3.4.7 of the JVR-VR does not describe how the values were assessed and demonstrate how the deviation does not impact conservativeness, 	<p>Round 1</p> <p><u>VVB Response</u> To demonstrate conservative emission calculations, the project proponent has elected to revise the CCPR project calculations and use values pulled directly from Appendix B of VM0039.</p> <p>a.) Cold Recycler, Wirtgen KMA 220 Plant (100 kgCO₂/hr) was replaced with Cold Recycler, Others (535.9 kgCO₂/hr) from Appendix B. Please note that the Wirtgen 12’ was not chosen because the 12’</p>	<p>Closed</p>

<p><u>Action Required</u></p> <ol style="list-style-type: none"> 1. The VVB must ensure Section 3.6 of the JPD-MR is updated to <ol style="list-style-type: none"> a. Specify each of the minor deviations taken (i.e., the list of equipment emission factors and the new factors used), and b. Demonstrate how the deviations are conservative. 2. The VVB must update Section 3.4.7 of the JVR-VR to <ol style="list-style-type: none"> a. Assess the appropriateness of the deviations (i.e., each equipment emission factor and the new factors used), and b. Demonstrate how the deviations are conservative. <p><u>Background</u></p> <p>The JPD-MR states that the deviation applied does not negatively impact the conservativeness of the quantification of the ERs. However, the conservativeness must be demonstrated given that Appendix B lists values for “Wirtgen Cold Recycler” and “Rubber Tired Loaders , Others”, other which are higher than the values used by the PP (i.e., 100kgCO2e/h for Wirtgen KMA 220 Plant, 133,1kgCO2e/h for Rubber Tired Loaders, CAT952, 139,2kgCO2e/h for Rubber Tired Loaders, CAT973, 119,8 for Paver Caterpillar 1055).</p> <p><u>Program Rule(s)</u></p> <p>VCS Joint Project Description and Monitoring Report Template, v4.2, Section 3.6 VCS Joint Validation and Verification Report Template, v4.2, Section 3.4.7</p>	<p>designation identifies the machines’ milling width. The Wirtgen KMA used on the project does not have milling capabilities and is a trailer pulled version rather than self-propelled thus it fits under the “others” classification.</p> <ol style="list-style-type: none"> b.) Rubber Tired Loaders, CAT 952 (133.1 kg CO2/hr) and Rubber Tired Loaders, CAT 973 (139.2 kgCO2/hr) were replaced with Rubber Tire Loaders, Others (145.7 kgCO2/hr) from Appendix B. c.) Paver, CAT 1055 (119.8 KG CO2/hr) was replaced with Paver, Others (126.5 kg CO2/hr) <p>Since the revision replaced the equipment emission factors with values defined in the VM0039 methodology, the deviation section has been removed as it is no longer applicable.</p> <p>RCE confirmed that since the proposed revision replaced the equipment emission factors with values defined in the VM0039 methodology, the deviation section has been removed as it is no longer applicable. RCE confirmed that Section 3.6 of the JPD-MR was correctly updated.</p> <p>RCE updated Section 3.4.7 of the JVR-VR.</p> <p><u>Verra Response</u></p> <p>The VVB has clarified that there is no methodology deviation since the project proponent has adopted the emission factor values provided in Appendix B of VM0039, v1.0. Section 3.6 of the JPD-MR and Section 3.4.7 of the JVR-VR have been updated to reflect this. This finding is now closed.</p>	
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12	Missing formulas to calculate project emissions						
	<u>Issue</u>	<table border="1"> <tr> <td>Round 1</td> <td>Closed</td> </tr> <tr> <td><u>VVB Response</u></td> <td></td> </tr> </table>	Round 1	Closed	<u>VVB Response</u>		
Round 1	Closed						
<u>VVB Response</u>							

	<p>Section 5.2 of the JPD-MR does not include the formulas to be used in case the operation hours cannot be measured (i.e., equation 12 of VM0039) and the provisions under equations 10, 13 and 14.</p> <p><u>Action Required</u></p> <ol style="list-style-type: none"> 1. The VVB must require the project proponent include in Section 5.2 of the JPD-MR the formulas to be used in case the operation hours cannot be measured and equations 10, 13 and 14 of VM0039, or clearly describe that no future project activity instance will include more than one installation project. 2. The VVB must validate this information and update the JVR-VR as needed. <p><u>Program Rule(s)</u> VM0039, v.1.0</p>	<p>RCE confirmed the following changes to the JPD-MR:</p> <p>Equation 10 and 12 of the methodology was added to Section 5.2.1 of the JPD-MR and includes the appropriate data/parameters.</p> <p>Equation 13 and 14 of the methodology was added to Section 5.2.2 of the JPD-MR and includes the appropriate data/parameters.</p> <p>RCE added wording to the first paragraph of Section 4.1 confirming these equations are correctly used to calculate baseline/project emissions.</p> <p><u>Verra Response</u> Sections 5.2.1 and 5.2.2 of the JPD-MR have been updated to include the equations 10, 12, 13 and 14. The VVB has assessed these updated. This finding is now closed.</p>	
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13 Missing information on calculation of ex-ante emission reductions			
	<p><u>Issue</u></p> <ol style="list-style-type: none"> 1. Sections 5.2, 5.3 and 5.4 of the JPD-MR do not demonstrate how the net emissions (i.e., baseline and project emissions) have been calculated ex-ante for segment 3 of the project and the years 2020 onwards. 2. Section 6.2 of the JPD-MR does not reflect the values used to estimate the annual GHG ERRs. 3. The ex-ante ER spreadsheet has not been submitted. 4. Finally, the yearly vintages in Section 5.4 of the JPD-MR have not been reported in calendar format (E.g., day-month-year to day-month-year). 	<p><u>Round 1</u></p> <p><u>VVB Response</u></p> <p>RCE confirmed the following changes to the JPD-MR to be sufficient and appropriate:</p> <p>1a) Section 5.2 JPD-MR template instructions state to describe the procedure for quantification of project emissions in accordance with the applied methodology. The first paragraph of Section 5.2 states that Segment 2 calculations are used as an example to describe the procedure for quantification and that Segment 3 follows the same procedure. Please note that Segment 3 is not an ex-ante estimate, it is an ex-post calculation since the project is complete and all monitored variables are included in Section 7.1.2 as required.</p>	<p>Closed</p>

<p><u>Action item</u></p> <ol style="list-style-type: none"> 1. The VVB must ensure that Sections 5.2, 5.3 and 5.4 have been updated to clearly describe and demonstrate how the ex-ante emission reductions for segment 3 and beyond 2020 have been calculated. 2. The VVB must ensure Section 6.2 of the JPD-MR is updated to reflect the values used to estimate the annual GHG ERRs. 3. The VVB must submit the ex-ante ER spreadsheet. 4. Section 5.4 of the JPD-MR must report the yearly vintages in calendar format. 5. The VVB must further validate the calculations and update the JVR-VR as needed. <p><u>Program rule(s)</u> <i>VCS Joint Project Description and Monitoring Report Template v.4.2, Section 5</i> <i>VCS Joint Validation and Verification Report Template v.4.2, Section 3.4.6</i></p>	<p>1b) Section 5.3 of the JPD-MR template instructions states to describe the procedure for quantification of leakage emissions in accordance with the applied methodology. Section 5.3 of the JPD-MR clearly states that VM0039 specifies that there is no leakage applicable to project calculations.</p> <p>1c) Section 5.4 of the JPD-MR template instructions states provide the ex-ante calculation (estimate) of baseline emissions/removals, project emissions/removals, leakage emissions and net GHG emission reductions and removals in the table below for the project crediting period. This is the only place where ex-ante is mentioned, and it specifically says to enter this information into the template table. Section 5.4.3 was revised to explain assumptions made in the ex-ante calculations and then provided a reference to the calculation spreadsheet.</p> <p>2) Section 6.2 tables have been revised accordingly along with Section 5.4.3 explaining the assumptions made.</p> <p>3) The ex-ante ER spreadsheet has been submitted with this PRR response.</p> <p>4) The yearly vintages in Section 5.4.3 have been reported in DD-Month-YYY format for the crediting period.</p> <p>RCE updated tables in Section 5.0 of the JVR-VR.</p>	
	<p><u>Verra Response</u></p> <p>The VVB has submitted an ex-ante ER spreadsheet that demonstrates the emission calculations described in Sections 5.2, 5.3 and 5.4 of the JPD-MR. Section 5.4 of the JPD-MR has also been updated to 1) explain the assumption and choices made for the ex-ante calculations for the entire crediting period per the ER spreadsheet, and 2) reflect the yearly vintages in calendar format. The VVB has also updated Section 5 of the JVR-VR to reflect ex-ante calculations per calendar format. This finding is now closed.</p>	

14 Further information and assessment on values used for EFEQ		
<p><u>Issue</u></p> <p>The JPD-MR uses values for the EFEQ which are not listed under Appendix B of VMR0039 (as per methodology deviation described under Section 3.6). However:</p> <ol style="list-style-type: none"> The JVR-VR page 32 states that they have been sourced from Appendix B. the link provided in page 50 of the JPD-MR (Table EFEQ) is not working. <p><u>Action item</u></p> <ol style="list-style-type: none"> The VVB must ensure that the project proponent updates data/parameter EF_{EQ} in Section 6.1 of the JPD-MR to clarify the inconsistencies in issues (a) and (b). The VVB must further validate this information and update the JVR-VR as needed. <p><u>Program rule(s)</u> VCS Joint Project Description and Monitoring Report Template v.4.2, Section 6.1 VCS Joint Validation and Verification Report Template v.4.2, Section 3.4.7</p>	<p>Round 1</p> <p><u>VVB Response</u></p> <p>The EFEQ tables in Section 6.1.1 and 6.1.2 have been revised accordingly to match the VM0039 Appendix B. The link has been removed since the reference is directly to VM0039.</p> <p>RCE confirmed that the parameter EFM has been added to Sections 6.1.1 and 6.1.2., the parameter EFEL has been added to section 6.1.1., and that the CB table has been removed from section 6.1.</p> <p>No revisions to the JVR-VR were necessary.</p>	Closed
	<p><u>Verra Response</u></p> <p>The EF_{EQ} data/parameter values in Section 6.1 of the JPD-MR have been updated to match the values in Appendix B of VM0039. The VVB has assessed the updates. This finding is now closed.</p>	
15 Missing information and data/parameters available at validation and to be monitored		
<p><u>Issue</u></p> <ol style="list-style-type: none"> The following data/parameter available at validation are missing in Section 6.1 of the JPD-MR: CF The following monitoring data/parameters are missing in Section 6.2 of the JPD-MR: CEL and HRLA (for HMA and CCPR) and S (for FDR). 	<p>Round 1</p> <p><u>VVB Response</u></p> <p>RCE confirmed the following changes to the JPD-MR:</p> <ol style="list-style-type: none"> The CF variable has been added to Section 6.1 of the JPD-MR. The CEL and HRLA variable tables have been added to section 6.2.1. The S variable table has been added to Section 6.2.2. Please note, none of these variables 	Closed

<p>3. Section 6.2 of the JPD-MR does not include any calibration frequency and accuracy levels for data/parameters that need it (e.g., Wm).</p> <p><u>Action item</u></p> <ol style="list-style-type: none"> 1. The VVB must ensure that the project proponent includes all the monitoring parameters in Sections 6.1 and 6.2 of the JPD-MR. 2. The VVB must ensure Section 6.2 of the JPD-MR is updated to include calibration frequency and accuracy levels for relevant data/parameters. 3. The VVB must further validate this information and update the JVR-VR as needed. <p><u>Program rule(s)</u> <i>VCS Joint Project Description and Monitoring Report Template v.4.2, Section 6.2</i> <i>VCS Joint Validation and Verification Report Template v.4.2, Section 3.4.8</i></p>	<p>were used in the first monitoring period and that note has been added to the comment section of the tables.</p> <ol style="list-style-type: none"> 3) Within Section 6.2, the following variable tables were revised to incorporate the requested information: W_M, Project Amount, DE, and LC. Specifically, section 6.2.1 for the data parameter 'W_M', the proponent updated the calibration frequency to be performed at a minimum every 6 months according to industry standards and the accuracy levels are to meet NIST Handbook 44 standards. 4) RCE updated the wording under section 3.4.8 first paragraph. 	
	<p><u>Verra Response</u> Section 6.1 of the JPD-MR has been updated to include data/parameters CF; Section 6.2 of the JPD-MR has been updated to include the data/parameters CEL, HRLA and S. Further, calibration frequency and accuracy levels have been added to measured data/parameters. The VVB has updated Section 3.4.8 of the JVR-VR to reflect the updated data/parameters and calibration frequency and accuracy levels. This finding is now closed.</p>	

16 Missing information in Section 7 of the JPD-MR and GHG ERR spreadsheet		
<p><u>Issue</u></p> <ol style="list-style-type: none"> 1. The results of the cross-checks performed for the following parameters have not been reported under Section 7.1 of the JPD-MR: WM, Distancep, Distances, Project Amount, HREQ), DE, LC and L. Further it is not clear the source of LC. 	<p>Round 1</p> <p><u>VVB Response</u></p> <ol style="list-style-type: none"> 1) Upon further review, the tables previously included in the JPD-MR under Section 7.1 did not match with the JPD-MR v4.2 Template. The tables were revised to better align with the JPD-MR v4.2 template and prevent redundancies. The discussed cross-checks that are 	<p>Closed</p>

<p>2. Section 7.3 does not report how EI has been calculated and its components.</p> <p>3. The GHG ERR spreadsheet submitted does not break down the quantification by calendar year.</p>	<p>required as part of the QA/QC procedures applied under the tables in Section 6.2 were quality control procedures performed by the project proponent and reviewed by the VVB to ensure that the contractor's reported parameters were accurate and realistic based on project dimensions and industry standards. Section 6.3 was revised to further explain this process accordingly. Finally, the LC values applied to the project were the default values defined in the methodology (0.32 for FSB) on page 25 footnote 6 of VM0039 which was added as a note to the relevant parameter tables.</p> <p>2) Section 7.3 has been revised to break down the EI into its constituent parts. The process and all required variables are well documented within this report and the attached ER spreadsheet.</p> <p>3) The VVB confirmed this information through re-calculating the emission reductions and emissions intensity.</p> <p>4) The VVB updated the JVR-VR to include screenshots of re-calculations and estimates.</p>	
<p><u>Action item</u></p> <p>1. The VVB must ensure that Section 7.1 of the JPD-MR is updated to include the results of the cross-checks (and sources used) for the data/parameters mentioned in Issue 1 by calendar year.</p> <p>2. The VVB must ensure Sections 7.1 and 7.3 of the JPD-MR is updated to demonstrate how EI has been calculated.</p> <p>3. The VVB must ensure the GHG ERR spreadsheet is updated to show (e.g., traceable) baseline and project emissions. and net GHG ERR quantifications by calendar year.</p> <p>4. The VVB must further validate this information and update the JVR-VR as needed.</p> <p><u>Program rule(s)</u> <i>VCS Joint Project Description and Monitoring Report Template v.4.2, Section 7</i> <i>VCS Joint Validation and Verification Report Template v.4.2, Section 4.1</i></p>	<p><u>Verra Response</u> Section 7.1 of the JPD-MR has been updated to reflect the monitored data/parameters, and Section 7.3 have been updated to demonstrate how the EI is calculated, by calendar year. Further, the GHG ERR spreadsheets have been updated. The VVB has assessed the updates by reproducing the emission reductions and intensity. This finding is closed.</p>	

<p>17</p>	<p>Insufficient information on project boundary and quantification in JVR-VR</p>		
	<p><u>Issue</u> Section 3.4 of the JVR-VR lacks information on the following:</p>	<p>Round 1 <u>VVB Response</u></p>	<p>Closed</p>

	<p>(a) Section 3.4.3 does not have an assessment on each source and sink of the project boundary included in Section 3.3 of the JPD-MR,</p> <p>(b) Section 3.4.5 does not include description on how the VVB cross-checked and assessed the project’s actual emissions,</p> <p>(c) Section 3.4.6 does not include an assessment on the ex-ante GHG ERRs, nor the equations and value of the parameters verified in order to confirm the accuracy of the ex-ante and ex-post emission reductions calculations,</p> <p><u>Action item</u></p> <p>1. The VVB must update Sections 3.4.3, 3.4.5 and 3.4.6 of the JVR-VR to address points a to d above.</p> <p><u>Program rule(s)</u> VCS Joint Validation and Verification Report Template v.4.2</p>	<p>a. RCE included the assessment of each SSR in section 3.4.3.</p> <p>b. RCE updated section 3.4.5 to include a description on how the VVB cross-checked actual emissions.</p> <p>c. RCE added screenshots of re-calculations performed in excel to Section 3.4.6. The equations are listed in these spreadsheets and the columns include a comparison between the Project Proponent’s values and RCE’s values with differences noted.</p> <p><u>Verra Response</u> Section 3.4.3 of the JVR-VR has been updated to include the assessment on each source and sink, Section 3.4.5 has been updated to include description on how the VVB cross-checked the project’s emission intensity against the performance benchmark, and Section 3.4.6 has been updated to assess the accuracy of GHG ERRs via reproduction of calculation. This finding is now closed.</p>	
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18 Insufficient information on accuracy and quality of GHG ERR calculations			
	<p><u>Issue</u> Section 4 of the JVR-VR does not include the following information:</p> <p>(a) Section 4.1 does not include information on the calibration requirements and the calibration performed (dates, entities) in each of the instruments used in the monitored, and</p> <p>(b) Section 4.2 does not include the records/documents verified in order to confirm the accuracy of the monitored parameters and the details/results of any</p>	<p>Round 1</p> <p><u>VVB Response</u></p> <p>a) RCE added language in Section 4.1 regarding information reviewed for the calibration requirements for the scales. This is the only piece of equipment that measures project parameters directly. All other values are taken from the certified construction reports submitted to the VDOT and contractor reports.</p> <p>b) RCE updated the language in Section 4.2 to state that all documents reviewed are located in Appendix A and screenshots of RCE’s calculation checks are included in</p>	<p>Closed</p>

	cross-checks made.	Section 3.4.6. RCE also updated Appendix A to include all files reviewed instead of a summary of the documents.	
	<p><u>Action Required</u></p> <ol style="list-style-type: none"> The VVB must update Sections 4.1 and 4.2 of the JVR-VR to address points a and b above. <p><u>Program Rule(s)</u> VCS Joint Validation and Verification Template, v4.2, Sections 4.1 and 4.2</p>	<p><u>Verra Response</u></p> <p>Sections 4.1 and 4.2 of the JVR-VR have been updated to include more information about how instrument calibration was assessed, and the records/documents verified to confirm the accuracy of monitored parameters. This finding is now closed.</p>	

19	Incorrect report of emission reductions		
	<p><u>Issue</u></p> <p>The JPD-MR and JVR-VR report the emission reductions with decimals.</p> <p><u>Action item</u></p> <ol style="list-style-type: none"> The VVB must ensure that the JPD-MR reports all the results of the GHG ERR calculations in rounded down, whole values. The VVB must update the JVR-VR to report all the results of the GHG ERR calculations in rounded down, whole values. <p><u>Program rule(s)</u> VCS Joint Project Description and Monitoring Report Template v.4.2 VCS Joint Validation and Verification Report Template v.4.2</p>	<p>Round 1</p> <p><u>VVB Response</u></p> <p>The JPD-MR and ER spreadsheets have been revised to conservatively round all emission results. Final results for baseline emissions were rounded down, project emissions were rounded up, resulting in a final emission reduction that is rounded down to an integer value.</p> <p><u>Verra Response</u></p> <p>The GHG ERR calculations are now presented as integers. This finding is now closed.</p>	Closed

20	GHG ERRs for crediting period must be in calendar year format		
	<u>Issue</u>	Round 1	Closed

	<p>Section 5.4.3 of the JPD-MR only reflects estimated GHG ERRs from 2018 – 2027 and not calendar year format.</p> <p><u>Action item</u></p> <ol style="list-style-type: none"> The VVB must ensure that Section 5.4.3 of the JPD-MR is updated to show the estimated GHG ERRs for crediting period by calendar year. <p><u>Program rule(s)</u> VCS Joint Project Description and Monitoring Report Template v.4.2, Section 5.4</p>	<p><u>VVB Response</u></p> <p>Section 5.4.3 was revised accordingly to capture the entire monitoring period and include calendar year and date range breakdown.</p>	
		<p><u>Verra Response</u></p> <p>Section 5.4.3 of the JPD-MR now reflects the estimated GHG ERRs in calendar year format. This finding is closed.</p>	

21 Outdated information used for data/parameter available at validation			
	<p><u>Issue</u></p> <p>Sections 6.1 of the JPD-MR appears to not use the latest available data for data/parameters CB, EF_M, EF_T, and EF_{EQ}.</p> <p><u>Action item</u></p> <ol style="list-style-type: none"> The VVB must clarify if the default factors for the data/parameters mentioned above are based on the most updated version of the data sources. The VVB must ensure that the project proponent updates the default factors as needed, and the VVB must assess the changes appropriately. <p><u>Program rule(s)</u> VM0039, v1.0, Section 8.1</p> <p><u>Background</u></p> <p>The tables in VM0039 for these factors state “[the emission factors are]... updated each year to ensure that project</p>	<p>Round 1</p> <p><u>VVB Response</u></p> <p>GE Response –</p> <p>Altering emission factors affects both the performance benchmark and project emissions. The VCS Methodology Development and Review Process, v4.2 Section 5.3.4 (4) was in force when VM0039 was developed. The current version, v4.4, Section 5.3.4 (4) is very similar. They both state “for methodologies using standardized methods, the developer shall submit to Verra a report documenting the standardized method re-evaluation within five years but not sooner than four years since the initial approval.” The v4.4 phrasing is slightly different and states, “The developer or another entity shall submit to Verra a report documenting the standardized method re-evaluation. This report shall be issued no earlier than four years after the most recent approval of the methodology. Where a report is not submitted to Verra within five years of the methodology’s initial or most recent approval, the methodology becomes inactive until it is determined that the methodology does not require revision, or the revised methodology is approved”.</p>	<p>Closed</p>

	<p>proponents have the most accurate and up-to-date greenhouse gas data.”</p>	<p>VM0039 was approved 24-June-2019 and Global Emissionary is currently working on the reassessment, but it is not due until 24-June-2024.</p> <p>This project monitoring period is claiming 2018 and 2019 vintages which is at or before the time that the VM0039 methodology was approved indicating that the values used for project calculations were current at the time project activities took place.</p> <p>It is noted that the PP plans to update all relevant parameters once a formal performance benchmark reassessment is performed in 2024.</p>	
		<p><u>Verra Response</u> The VVB confirms that the data/parameters available at validation are still valid. This finding is now closed.</p>	

<p>22 Gaps in implementation of project activity not reported</p>			
	<p><u>Issue</u> Section 4.1 of the JPD-MR does not describe the state of the operation of the project activity during this monitoring period, given no GHG ERRs were generated from 1 Jan 2020 to 13 Sep 2021.</p> <p><u>Action item</u></p> <ol style="list-style-type: none"> 1. The VVB must ensure Section 4.1 of the JPD-MR is updated to include description of the operation of the project activity during this monitoring period, including any information on events that may impact the GHG ERRs and monitoring, particularly during the period where no GHG ERRs was generated. 2. The VVB must update Section 4.1 of the JVR-VR to assess the updates above as needed. <p><u>Program rule(s)</u></p>	<p>Round 1</p> <p><u>VVB Response</u></p> <p>Section 4.1 of the JPD-MR was updated to indicate that there was ongoing road construction during the monitoring period that ended September 13, 2021. There was no on-going, project related construction between Segment 2 and 3. There is no impact to emission reductions or monitoring when no construction is taking place. RCE updated section 4.1 to state as such. Please note that the final project construction during the monitoring period ended on 13 September 2021 (the end of the current monitoring period).</p>	<p>Closed</p>
		<p><u>Verra Response</u> Section 4.1 of the JPD-MR has been updated to clarify that there were no on-going project activities carried out during 2020 - 2021. This finding is now closed.</p>	

	<i>VCS Joint Project Description and Monitoring Report, v4.2, Section 4.1 VCS Joint Validation and Verification Report Template, v4.2, Section 4.1</i>		
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