

**Review Form 3**

Journal Name:	<a href="#">Current Journal of Applied Science and Technology</a>
Manuscript Number:	<b>Ms_CJAST_124904</b>
Title of the Manuscript:	<b>A case study of Black oil PVT modeling with Differential Liberation Expansion (DLE) analysis and standing correlations</b>
Type of the Article	

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**PART 1: Review Comments**

<b>Compulsory</b> REVISION comments	Reviewer's comment	<b>Author's Feedback</b> (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	This article provides a detail analysis of PVT properties in black oil reservoirs, emphasizing the importance of accurate modeling for measuring economic viability. Its detailed methodology and validation of parameters add valuable insights to reservoir engineering practices. Authors have provided the thoroughness and practical recommendations, which improve its significance to the scientific community. However, a clearer organization of results could improve readability. Additionally, the authors could enhance understanding by representing the results using graphs, which would further aid readers in visualizing the data.	
Is the title of the article suitable? (If not please suggest an alternative title)	The title " A case study of Black oil PVT modeling with Differential Liberation Expansion (DLE) analysis and standing correlations " effectively conveys the core focus of the research, making it clear and relevant for the scientific community.	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	The abstract is comprehensive and addresses the key points required in the discussion. However, there are some recommendations that the authors may consider incorporating to enhance readability and clarity for their readers. <ol style="list-style-type: none"> <li>1. There are minor grammatical errors and typos that need correction. Examples include: A jar of black oil samples was collected for the analysis", which may be corrected to "Black oil samples were collected for analysis.</li> <li>2. Maintain consistent formatting for units (e.g., use "psi" instead of "psig" where appropriate).</li> <li>3. Clarify the meaning of "oil isothermal combustibility (Co)" to "oil isothermal compressibility (Co)."</li> <li>4. The reservoir contains heavy crude oil with an API rating of 30. (Carlton Beal 2013). This statement contains a reference, while abstracts typically do not include references. The authors are advised to verify the journal's policies regarding this matter.</li> <li>5. Lastly, the authors may consider adding a few points about the necessity of this research at the beginning of the abstract.</li> <li>6.</li> </ol>	
Are subsections and structure of the manuscript appropriate?	Yes, subsections and structure of the manuscript is appropriate.	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.	This article determines scientific robustness through its comprehensive PVT analysis of black oil, integrating established methodologies and empirical correlations. The usage of rigorous experimental processes for viscosity measurement and the validation of critical PVT parameters—such as bubble point pressure, solution gas/oil ratio, and formation volume factor—provides a solid foundation for the findings. The detailed discussion of the results, coupled with well-supported recommendations, highlights the manuscript's technical soundness. Moreover, the citations of relevant literature improve the credibility and context of the research. In all, the article efficiently contributes to the understanding of reservoir fluid dynamics and the economic valuation of hydrocarbon resources.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	Introduction section must be written on more quality way, i.e. more up-to-date references addressed. Research gap should be delivered on more clear way with directed necessity for the conducted research work	

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Minor REVISION comments	English language should be carefully checked and carefully check paper for language typos	
Is the language/English quality of the article suitable for scholarly communications?		
Optional/General comments	<ol style="list-style-type: none"><li>1. The main objective of the work must be written on the more clear and more concise way at the end of introduction section.</li><li>2. Conclusion section is missing some perspective related to the future research work, quantify main research findings.</li><li>3. Paper has a lot of abbreviations, add Nomenclature.</li><li>4. Authors may add graphs in result and discussion section.</li><li>5. The average absolute error of 3.5% is a good metric, but it would be useful to discuss how this error affects the reliability of the PVT properties. Are there specific uncertainties associated with individual measurements?</li></ol> <p>There are no ethical issues in this manuscript.</p>	

### PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

### Reviewer Details:

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