

Review Form 1.7

Journal Name:	Journal of Energy Research and Reviews
Manuscript Number:	Ms_JENRR_118666
Title of the Manuscript:	Modeling the flow behavior as a function of pressure to characterize well productivity
Type of the Article	

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PART 1: Review Comments

	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)
<p><u>Compulsory</u> REVISION comments</p> <ol style="list-style-type: none"> 1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript) 2. Is the title of the article suitable? (If not please suggest an alternative title) 3. Is the abstract of the article comprehensive? 4. Are subsections and structure of the manuscript appropriate? 5. Do you think the manuscript is scientifically correct? 6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<ol style="list-style-type: none"> 1. The manuscript offers essential methods for optimizing reservoir production and well performance by modeling pressure-dependent flow behavior. It aids in accurate pressure drop estimation and Inflow Performance Relationships (IPR) establishment. 2. The title is suitable, but it could be more concise. An alternative title could be "Modeling Pressure-Dependent Flow Behavior to Enhance Well Productivity." 3. Yes, the abstract is comprehensive, as it effectively outlines the importance of understanding multiphase flow in wells, the significance of pressure drop estimation, factors affecting production capacity, and the mathematical modeling of reservoir production. 4. Yes 5. Yes, the manuscript appears scientifically correct as it accurately describes key concepts in reservoir engineering, including multiphase flow, pressure drop estimation, production capacity factors, and the use of mathematical models to characterize well productivity. 6. Yes, references look sufficient. 7. Fig. 1 should be referenced. 8. Materials and methods lack clarity in terms of the methodology employed for data analysis and simulation. Providing more details on the numerical simulation techniques used and the rationale behind the selection of specific correlations would enhance the reproducibility and comprehensibility of the study. 9. In conclusion, it would be beneficial to discuss the limitations of the study and suggest directions for future research in addressing the identified gaps in pressure drop estimation. 	
<p><u>Minor</u> REVISION comments</p> <ol style="list-style-type: none"> 1. Is language/English quality of the article suitable for scholarly communications? 	<p>The language and English quality of the article generally meet the standards for scholarly communications. However, there are areas for improvement. For instance, some sentences exhibit complex structures that hinder comprehension. Grammatical errors, such as redundant phrases and awkward constructions, are present throughout the manuscript. For example, the sentence 'The flow rate of the well increases with the increase in the length of the perforations as well as with the diameter of the perforation' could be simplified to 'The flow rate of the well increases with the length and diameter of the perforations.' Some statements lack clarity, making it challenging for readers to grasp the intended meaning. By addressing these issues, the overall quality of the article can be significantly improved, ensuring it meets the expectations for scholarly communication.</p>	
<p><u>Optional/General</u> comments</p>		

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PART 2:

	Reviewer's comment	Author's comment <i>(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)</i>
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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