EOSC 433: OPEN ENDED DESIGN PROBLEM 4 – CROWN PILLAR HEIGHT

Grading Rubric

Name: ……

	EXCELLENT (90 – 100%)	**GOOD** (89 – 72%)	**SATISFACTORY** (71 – 60%)	**NEEDS IMPROVEMENT** (≤59%)	**PTS.**
OVERALL CONTENT	Maximum 75%				
INTRODUCTION	Very clearly and concisely: o Identifies the problem AND o States the purpose of the report	Adequately: o Identifies the problem AND o States the purpose of the report	Vaguely: o Identifies the problem OR o States the purpose of the report	Inadequately: o Identifies the problem AND o States the purpose of the report	
PROJECT DESCRIPTION	Clearly describes the project in detail, taking into account the: o Site geology AND o Other given parameters	Describes the project in detail, taking into account the: o Site geology OR o Other given parameters	Describes some details of the project (but misses key aspects) in: o Site geology OR o Other given parameters	Lacks to describe the project in detail	____/5
MODELING AND INPUT PARAMETERS	Clearly identifies all the information needed to run the model: o States and describes the software o Designs the model as per project specifications and describes other parameters (excavation/ staged/ external boundaries and mesh) o States and briefly *justifies* all the input parameters (rock mass/backfill, elastic/strength parameters) o Describes any other model assumptions/methods	Identifies the information needed to run the model: o States and describes the software o Designs the model as per project specifications o States and briefly *justifies some* input parameters (rock mass/backfill, elastic/strength parameters) o Describes some model assumptions/methods	Identifies basic information needed to run the model: o States the software used o Omits certain parts of the model o *Only states* the input parameters (rock mass/backfill, elastic/strength parameters) o Vaguely justifies the in situ stresses o Does not describe any other model assumptions/methods	Lacks to identify basic information needed to run the model: o Does not state the software o Does not design the model as per project specifications o States a few or no input parameters (rock mass/backfill, elastic/strength parameters) o Does not justify the in situ stresses o Does not describe any other model assumptions/methods	___/25
FINITE ELEMENT ANALYSIS	o Explains the different k ratios/ in situ stresses o Clearly explains the determination of crown pillar height o Effectively evaluates the crown pillar height by: ▪ Commenting on the SF and yielded material ▪ Effect of staging/backfilling ▪ Pillar/pit wall interaction ▪ Comparing the results from the two k ratios o Effectively interprets the critical k ratio	o Explains the different k ratios/ in situ stresses o Adequately explains the determination of crown pillar height o Adequately evaluates the crown pillar height by: ▪ Commenting on the SF and yielded material ▪ Effect of staging/backfilling ▪ Pillar/pit wall interaction ▪ Comparing the results from the two k ratios o Adequately interprets the critical k ratio	o Vaguely explains the different k ratios/ in situ stresses o Vaguely explains the determination of crown pillar height o Vaguely evaluates the crown pillar height by: ▪ Commenting on the SF and yielded material OR ▪ Effect of staging/backfilling OR ▪ Pillar/pit wall interaction OR ▪ Comparing the results from the two k ratios o Vaguely interprets the critical k ratio	o Does not explain the different k ratios/ in situ stresses o Does not explains the determination of crown pillar height o Does not evaluate the crown pillar height o Does not interpret the critical k ratio	___/35
RECOMMENDATION	Clearly gives a final recommendation: o Acknowledges previous results o Acknowledges the limitations of the analysis o Recommends other factors to consider for future analysis	Gives a final recommendation BUT misses one of the following: o Acknowledges previous results o Acknowledges the limitations of the analysis o Recommends other factors to consider for future analysis	Gives a final recommendation based on results and one of the following: o Acknowledges previous results o Acknowledges the limitations of the analysis o Recommends other factors to consider for future analysis	Does not give or clearly state a final recommendation based on the results	___/10

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TECHNICAL COMMUNICATION Maximum 20%					
ORGANIZATION	o Report is clearly organized in a logical manner o Report contains headings and subheadings, which contribute to clarity	o Report is adequately organized in a logical manner o Report has headings and subheadings	o Report is organized but contains some weak sections o Report has headings and subheadings	o Report is poorly organized o Report might have headings and subheadings, but do not contribute to clarity	___/5
MECHANICS	o Well-written. Excellent grammar, spelling, and punctuation o All numerical values have the appropriate number of significant figures	o Report is easy to read but may contain a few errors in grammar, spelling, and punctuation o Most numerical values have the appropriate number of significant figures	o Report is somewhat difficult to follow due to errors in grammar, spelling, and punctuation o Some numerical values have the appropriate number of significant figures	o Report is difficult to follow due to many errors in grammar, spelling, and punctuation o All numerical values do not have the appropriate number of significant figures	___/5
FIGURES AND TABLES	All figures/tables selected contribute to meaning of the report. Also: o All tables/figures are legible and well-placed on the page o All table/figure captions are descriptive o All tables/figures clearly link to the text	Figures/tables selected generally contribute to meaning of the report, and misses one of the following: o All tables/figures are legible and well-placed on the page o All table/figure captions are descriptive o All tables/figures link to the text	Figures/tables selected slightly contribute to meaning of the report, and misses two of the following: o All tables/figures are legible and well-placed on the page o All table/figure captions are descriptive o All tables/figures link to the text	Figure/tables selected slightly contribute to meaning of the report and misses the following: o All tables/figures are legible and well-placed on the page o All table/figure captions are descriptive o All tables/figures link to the text	____/5
REFERENCES	o Report includes relevant references using appropriate format o All references are appropriately cited within the text	o Report includes some relevant references appropriate format o Might use appropriate format AND/OR citation within the text	Includes irrelevant references	Does not include references (0 points)	____/3
REPORT PRESENTATION	Report contains a: o Title page AND o Page numbers		Report contains a: o Title page OR o Page numbers	Report lacks a (0 points): o Title page AND o Page numbers	____/2
TA'S DISCRETION Maximum of 5% given for exemplary work and effort					
				TOTAL	__/100

Additional Comments: