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3.2.2 – CS 6.5 QA-QC, Consolidation, and Permeability Results
3.2.3 – CS 8.5 QA-QC, Consolidation, and Permeability Results
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3.2.5 – WILL 5 QA-QC, Consolidation, and Permeability Results
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Figure 1: Histograms for CAYELI 6.5% SPEC PASTE - INITIAL PASTE PROPERTY

- **Initial Void Ratio**
  - Mean = 1.53
  - St. Dev. = 0.08
  - Coeff. Var. = 5%

- **Initial Density (g/cm³)**
  - Mean = 2.18
  - St. Dev. = 0.06
  - Coeff. Var. = 3%

- **Average Initial Water Content (%)**
  - Mean = 26
  - St. Dev. = 0.9
  - Coeff. Var. = 3%
Figure 2: Comparison of initial paste properties for CAYELI 6.5% Non-Spec Paste.

- Average Initial Density (g/cm³)
  - Average: 2.00 - 2.50
  - Initial: 2.00 - 2.45

- Average Void Ratio
  - Average: 0.00 - 2.00
  - Initial: 0.00 - 2.00

- Average Initial Mining Water Content (%)
  - Average: 23 - 29
  - Initial: 23 - 29

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CAYELI 6.5% NON-SPEC PASTE - COMPARISON OF INITIAL PASTE PROPERTIES

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CAYELI 8.5% SPEC PASTE - INITIAL PASTE PROPERTY HISTOGRAMS

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CAYELI 8.5% NON-SPEC PASTE - COMPARISON OF INITIAL PASTE PROPERTIES

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CAYELI 8.5% SPEC PASTE - CONSOLIDATION PLOTS (48 Hours, 96 Hours)

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CAYELI 8.5% NON-SPEC PASTE - CONSOLIDATION PLOTS
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WILLIAMS 3\% PASTE - COMPARISON OF INITIAL PASTE PROPERTIES

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WILLIAMS 3%- INITIAL VOID RATIO VERSUS PEAK SHEAR STRESS (4hr to 96hr)

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WILLIAMS 3%- INITIAL VOID RATIO VERSES PEAK SHEAR STRESS (168hr to 1344hr)

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WILLIAMS 5% PASTE- CONSOLIDATION PLOTS (4 Hours, 24 Hours)

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WILLIAMS 5% PASTE-CONSOLIDATION PLOTS

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WILLIAMS 3% PASTE - PERMIABILITY PLOTS

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WILLIAMS 5% PASTE - AVERAGE PERMABILITY CHANGE BY NORMAL STRESS AND AGE

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KIDD 2.5% - INITIAL VOID RATIO VERSES PEAK SHEAR STRESS (168hr to 544hr)

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KIDD 2.5% PASTE- CONSOLIDATION PLOTS (360 Hours, 544 Hours)

Figure 7
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KIDD 2.5% PASTE - PERMEABILITY PLOTS (4 Hours, 12 Hours, 24 Hours)

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KIDD 2.5% PASTE - AVERAGE PERMIABILITY CHANGE BY NORMAL STRESS AND AGE

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KIDD 4.5% PASTE - COMPARISON OF INITIAL PASTE PROPERTIES

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KIDD 4.5% - INITIAL VOID RATIO VERSES PEAK SHEAR STRESS (4hr to 96hr)

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A Design Procedure for Determining the In Situ Stresses of Early Age Cemented Paste Backfill

Figure 4

KIDD 4.5% - INITIAL VOID RATIO VERSUS PEAK SHEAR STRESS (168hr to 585hr)

Initial Peak Shear Stress (kPa)

Initial Void Ratio

585 Hr

1200 1000 800 600 400 200 0

1000 800 600 400 200 0

168 Hr

700 600 500 400 300 200 100 0

0.5 0.6 0.7 0.8 0.9 1
A Design Procedure for Determining the In Situ Stresses of Early Age Cemented Paste Backfill

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KIDD 4.5% PASTE-CONSOLIDATION PLOTS

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Figure 5
A Design Procedure for Determining the In Situ Stresses of Early Age Cemented Paste Backfill

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KIDD 4.5% PASTE-CONSOLIDATION PLOTS (48 Hours, 96 Hours)

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KIDD 4.5% PASTE - PERMEABILITY PLOTS (168 Hours, 585 Hours)

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