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ตัวอย่างผลการตรวจวัดคุณภาพน้ำรายสัปดาห์ของโครงการ

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| <b>SUEZ Water Technologies &amp; Solutions (Thailand) Co., Ltd</b><br><b>RY Office Tel:</b> (03) 060-700, <b>Fax:</b> (038) 685-462<br><b>SUEZ WTS Rep.:</b> Nantiya J.(063-2613358), Pimpapa S. (087-6072676), Piyapat K. (085-3908816)<br><b>SUEZ CC : Chavagorn P.</b> (090-9757465) | <b>GC Styrenics Company Limited</b><br><b>Report to:</b> Khun Worathep Sriprataks<br><b>Sampling Date:</b> 4-Jan-22<br><b>Sampling Time:</b> 9:00 AM |
|---|--|

#### 1). Cooling Water Treatments

| Parameters                                | Make up Water | M/U Control target | CW1(HIPS) | CW2(GPPS) | CW Control range |
|---|---------------|--------------------|-----------|-----------|------------------|
| pH  | 7.30          | 7-8                | 8.40      | 8.32      | 7.8-8.5          |
| Conductivity us/cm                        | 257           |                    | 765       | 592       | < 1,500          |
| Turbidity NTU                             | 0.63          | <1                 | 4.4       | 1.9       | < 20             |
| Calcium hardness ppm as CaCO3             | 52            | 30-45              | 180       | 168       | 60-180           |
| M-Alkalinity ppm as CaCO3                 |               |                    | 140       | 120       |                  |
| Chloride ppm as Cl-                       | 33            | <50                | 100       | 70        | < 200            |
| Silica ppm as SiO2                        | 10.4          | <15                | 23.7      | 17.5      | < 150            |
| Total Iron ppm as Fe                      | 0.020         | <0.1               | 0.203     | 0.122     | < 3              |
| Total Dissolved Solids ppm                |               |                    | 380       | 298       | < 1,300          |
| Oil and Grease ppm                        |               |                    | 0.00      | 0.00      | < 5              |
| COD ppm                                   |               |                    | 42        | 0         | < 96             |
| TSS ppm                                   |               |                    | 15.4      | 3.0       | < 50             |
| Soluble Zinc ppm as Zinc                  |               |                    | 0.21      | 0.09      | > 0.5            |
| Total Zinc ppm as Zinc                    |               |                    | 0.49      | 0.20      | < 5              |
| Phosphate(unfilter) ppm as PO4            |               |                    | 6.2       | 7.0       | 6-10             |
| STP Polymer ppm as STP                    |               |                    | 15.19     | 10.96     | 10-20            |
| Cycle of concentration as SiO2            |               |                    | 2.3       | 1.7       | 3-5              |
| Cycle of concentration as Ca Hardness     |               |                    | 3.5       | 3.2       | 3-5              |
| Bacteria result(MB) cfu/ml                | ผลล้าสุด      | 20-Dec-21          | 420       | 800       | < 100,000        |
| Sulfate Reducing Bacteria (SRB)           | ผลล้าสุด      | 20-Dec-21          | 1         | 1         | Nil              |
| Index for predict status of cooling water |               |                    |           |           | Control          |
| Langelier Saturation Index (LSI)          |               |                    | 0.94      | 0.89      | - 0.5 - 1.5      |
| Blowdown flowrate                         |               |                    | 0.8       | 0.9       | m3./hr.          |

\*\*\* LSI = ค่าคำนวณความแข็งของน้ำ เพื่อป้องกันความเป็นไปไม่ปกติที่จะเกิดการกัดกร่อน(Corrosion) หรือเกิดตะกอน(Scaling), LSI > 0 Scaling, ค่า LSI > 1 โอกาสเกิดตะกอนจะยิ่งสูงขึ้น

#### 2). Chiller Treatment

| Parameter                       | Chiller#1 (144) | Chiller#2 (145) | Control range |
|---------------------------------|-----------------|-----------------|---------------|
| pH                              | 8.80            | 8.02            | > 8.5         |
| Conductivity us/cm              | 4,800           | 7,670           | < 8,000       |
| Total Iron ppm as Fe            | 1.05            | 0.69            | < 3           |
| Nitrite ppm as NO3              | 1,620           | 480             | > 600         |
| Bacteria result cfu/ml          | 1               | 800             | < 100,000     |
| Sulfate Reducing Bacteria (SRB) | 1               | 1               | Nil           |

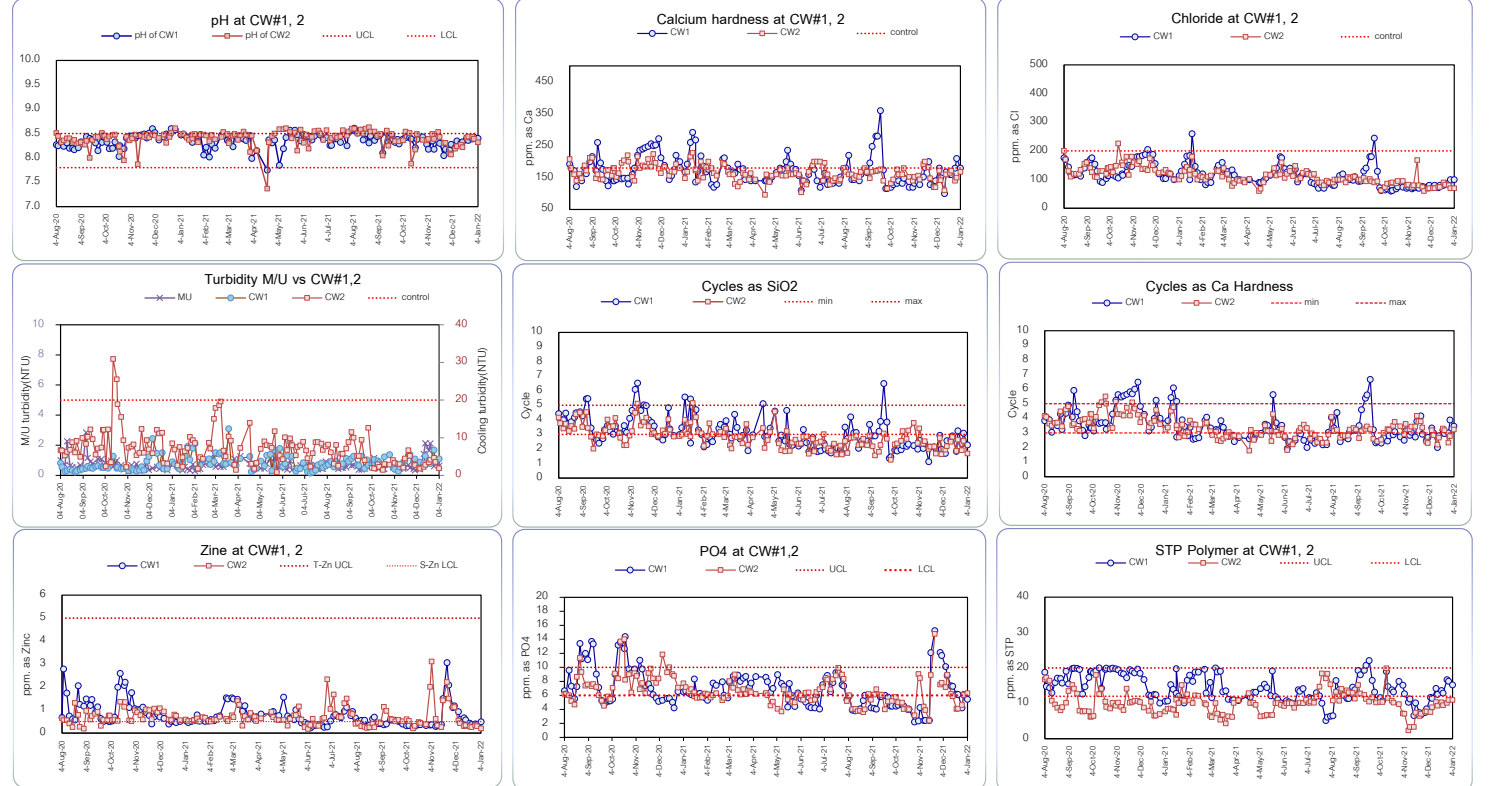
#### 3). Cutter Water

| Parameter                        | Cutter-1 (HIPS) | Cutter-2 (GPPS) | Control range |
|----------------------------------|-----------------|-----------------|---------------|
| pH                               | 8.71            | 8.85            | 5.5-9.0       |
| Conductivity us/cm               | 439             | 400             | < 1,500       |
| Turbidity NTU                    | 0.57            | 0.44            |               |
| Calcium hardness ppm as CaCO3    | 100             | 76              |               |
| M-Alkalinity ppm as CaCO3        | 80              | 60              |               |
| Chloride ppm as Cl-              | 55              | 55              |               |
| Silica ppm as SiO2               | 16.7            | 15.3            |               |
| Total Iron ppm as Fe             | 0.02            | 0.00            |               |
| Oil and Grease ppm               | 0.00            | 0.00            | < 5           |
| COD ppm                          | 3               | 0               | < 96          |
| Temperature analysis(°C)         | 24.5            | 24.5            | < 40 °C       |
| Blowdown flowrate                | 1               | -               | m3/hr         |
| Langelier Saturation Index (LSI) | 1.28            | 1.42            | - 0.5 - 1.5   |

#### 4). Feeding system

| Chemicals | Stroke / Seed rate |            | Chemicals stock(kgs) |       |
|-----------|--------------------|------------|----------------------|-------|
|           | CW1 (HIPS)         | CW2 (GPPS) | Master Tank          | Stock |
| GN8020    | 20/25              | 30/25      | 55                   | 250   |
| MS6209    | 10/25              | 30/25      | 50                   | 70    |
| NX1100    | 2                  | 2          |                      | 62    |
| NT4201    |                    |            |                      | 70    |

#### Water Quality Tendency



#### 5). Recommendation

##### Make up water :

- คุณภาพ make up water มีค่า Ca อยู่ที่ 52 ppm. ยังคงต่ำกว่า target

##### Cooling#1 HIPS and Cooling#2 GPPS Water

HIPS : ค่า Ca สูงเกินค่า control รวมน้ำมัน B/D จาก 0.8 m3/hr. เป็น 0.9 m3/hr. เพิ่มขึ้น 0.1 m3/hr. ละ

GPPS : คุณภาพน้ำโดยรวมอยู่ในค่าควบคุมและยังคง B/D ไว้ที่ 0.9 m3/hr. ละ

##### Chiller#1(144) and Chiller#2(145)

Chiller#144: โดยรวมอยู่ในค่าควบคุม

Chiller#145: pH และค่า Nitrite ยังต่ำกว่า target

##### Cutter#1(HIPS) and Cutter#2 (GPPS)

Cutter-1 (HIPS):ค่า pH สูงและน้ำมันเพิ่ม blowdown และควบคุม pH ไว้ไม่ให้เกิน 8.5 เพื่อป้องกันการเกิด Scaling ที่ tube side ละ

Cutter-2 (GPPS):ค่า pH สูงและน้ำมันเพิ่ม blowdown และควบคุม pH ไว้ไม่ให้เกิน 8.5 เพื่อป้องกันการเกิด Scaling ที่ tube side ละ

1). Cooling Water Treatments

| Parameters                                | Make up Water | M/U Control target | CW1(HIPS) | CW2(GPPS) | CW Control range |
|---|---------------|--------------------|-----------|-----------|------------------|
| pH  | 7.65          | 7-8                | 8.42      | 8.31      | 7.8-8.5          |
| Conductivity us/cm                        | 259           |                    | 732       | 656       | < 1,500          |
| Turbidity NTU                             | 0.75          | <1                 | 6.4       | 1.6       | < 20             |
| Calcium hardness ppm as CaCO3             | 56            | 30-45              | 144       | 136       | 60-180           |
| M-Alkalinity ppm as CaCO3                 |               |                    | 156       | 148       |                  |
| Chloride ppm as Cl-                       | 34            | <50                | 100       | 80        | < 200            |
| Silica ppm as SiO2                        | 7.0           | <15                | 22.0      | 18.9      | < 150            |
| Total Iron ppm as Fe                      | 0.012         | <0.1               | 0.101     | 0.096     | < 3              |
| Total Dissolved Solids ppm                |               |                    | 375       | 332       | < 1,300          |
| Oil and Grease ppm                        |               |                    | 0.00      | 0.00      | < 5              |
| COD ppm                                   |               |                    | 47        | 31        | < 96             |
| TSS ppm                                   |               |                    | 8.3       | 1.1       | < 50             |
| Soluble Zinc ppm as Zinc                  |               |                    | 0.29      | 0.27      | > 0.5            |
| Total Zinc ppm as Zinc                    |               |                    | 0.32      | 0.37      | < 5              |
| Phosphate(unfilter) ppm as PO4            |               |                    | 4.2       | 6.1       | 6-10             |
| STP Polymer ppm as STP                    |               |                    | 15.00     | 8.97      | 10-20            |
| Cycle of concentration as SiO2            |               |                    | 3.1       | 2.7       | 3-5              |
| Cycle of concentration as Ca Hardness     |               |                    | 2.6       | 2.4       | 3-5              |
| Bacteria result(MB) cfu/ml                | ผลล่าสุด      | 4-Jan-22           | 340       | 980       | < 100,000        |
| Sulfate Reducing Bacteria (SRB)           | ผลล่าสุด      | 4-Jan-22           | 1         | 1         | Nil              |
| Index for predict status of cooling water |               |                    |           |           | Control          |
| Langelier Saturation Index (LSI)          |               |                    | 0.96      | 0.88      | - 0.5 - 1.5      |
| Blowdown flowrate                         |               |                    | 1.0       | 0.8       | m3./hr.          |

\*\*\* LSI = ค่าคำนวณความอิ่มตัวของน้ำ เพื่อป้องกันความเป็นไปไม่ดังที่จะเกิดการกัดกร่อน(Corrosion) หรือเกิดตะกอน(Scaling), LSI > 0 Scaling, ค่า LSI > 1 โอกาสเกิดตะกอนจะยิ่งสูงขึ้น

2). Chiller Treatment

| Parameter                       | Chiller#1 (144) | Chiller#2 (145) | Control range |
|---------------------------------|-----------------|-----------------|---------------|
| pH                              | 8.80            | 8.11            | > 8.5         |
| Conductivity us/cm              | 4,960           | 7,880           | < 8,000       |
| Total Iron ppm as Fe            | 1.05            | 0.64            | < 3           |
| Nitrite ppm as NO3              | 1,540           | 450             | > 600         |
| Bacteria result cfu/ml          | 1               | 520             | < 100,000     |
| Sulfate Reducing Bacteria (SRB) | 1               | 1               | Nil           |

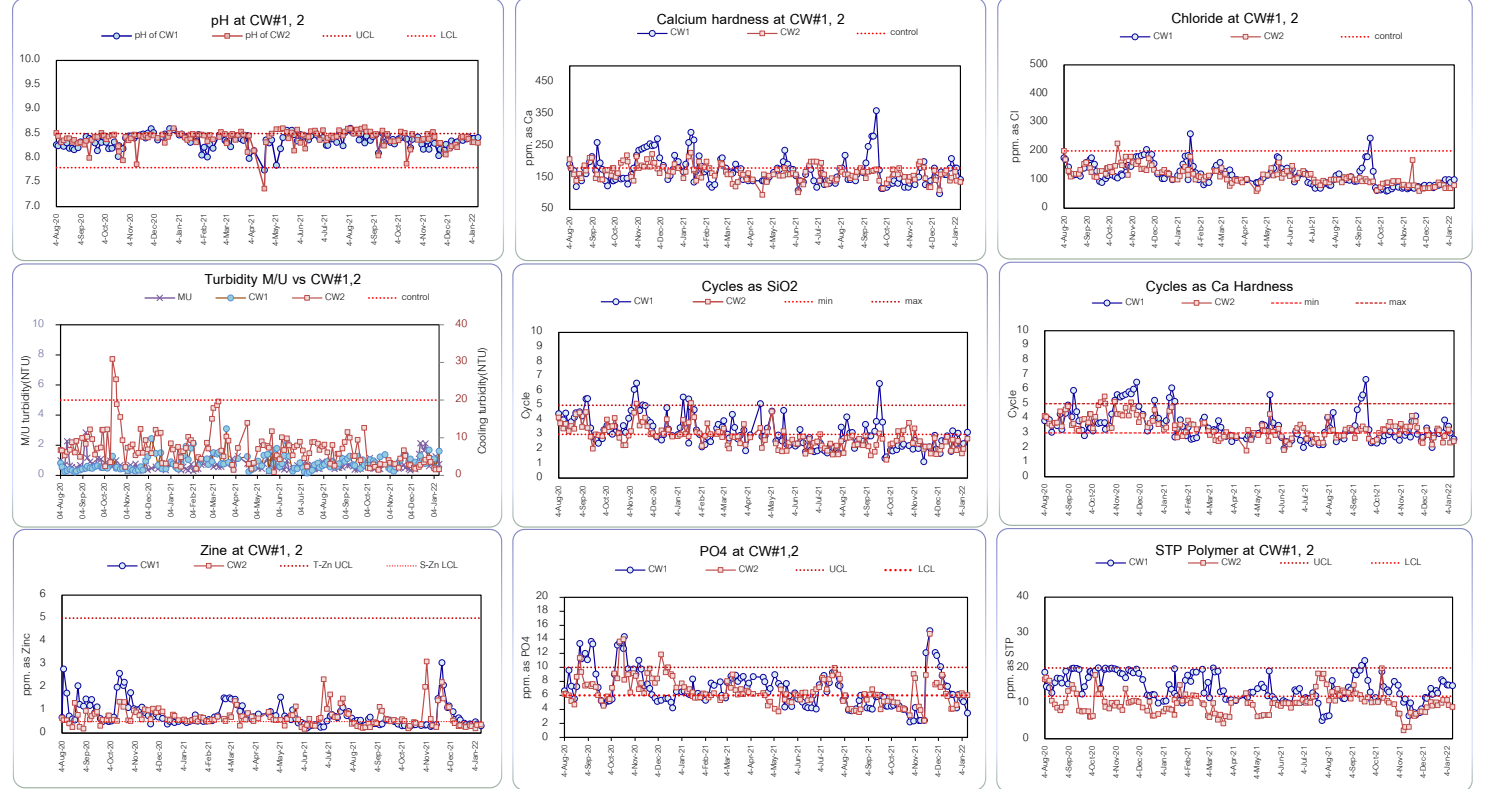
3). Cutter Water

| Parameter                        | Cutter-1 (HIPS) | Cutter-2 (GPPS) | Control range |
|----------------------------------|-----------------|-----------------|---------------|
| pH                               | 8.70            | 8.83            | 5.5-9.0       |
| Conductivity us/cm               | 397             | 366             | < 1,500       |
| Turbidity NTU                    | 0.61            | 0.50            |               |
| Calcium hardness ppm as CaCO3    | 68              | 64              |               |
| M-Alkalinity ppm as CaCO3        | 74              | 66              |               |
| Chloride ppm as Cl-              | 55              | 54              |               |
| Silica ppm as SiO2               | 11.1            | 14.1            |               |
| Total Iron ppm as Fe             | 0.01            | 0.01            |               |
| Oil and Grease ppm               | 0.00            | 0.00            | < 5           |
| COD ppm                          | 15              | 17              | < 96          |
| Temperature analysis(°C)         | 26.0            | 25.9            | < 40 °C       |
| Blowdown flowrate                | 1               | -               | m3/hr         |
| Langelier Saturation Index (LSI) | 1.27            | 1.40            | - 0.5 - 1.5   |

4). Feeding system

| Chemicals | Stroke / Seed rate |            | Chemicals stock(kgs) |       |
|-----------|--------------------|------------|----------------------|-------|
|           | CW1 (HIPS)         | CW2 (GPPS) | Master Tank          | Stock |
| GN8020    | 20/25              | 30/25      | 39.8                 | 250   |
| MS6209    | 15/25              | 35/25      | 45                   | 70    |
| NX1100    | 2                  | 4          |                      | 48    |
| NT4201    |                    |            |                      | 70    |

Water Quality Tendency



5). Recommendation

Make up water :

- คุณภาพ make up water มีค่า Ca อยู่ที 56 ppm. ยังคงค่าเกินกว่า target

Cooling#1 HIPS and Cooling#2 GPPS Water

HIPS : คุณภาพน้ำโดยรวมอยู่ในค่าควบคุม รบกวนปรับ B/D จาก 1.0 m3/hr เป็น 0.9 m3/hr. ลดลง 0.1 m3/hr. ละ

GPPS : คุณภาพน้ำโดยรวมอยู่ในค่าควบคุม รบกวนปรับ B/D จาก 0.8 m3/hr เป็น 0.7 m3/hr. ลดลง 0.1 m3/hr. ละ

Chiller#1(144) and Chiller#2(145)

Chiller#144: โดยรวมอยู่ในค่าควบคุม

Chiller#145: pH และค่า Nitrite ยังต่ำกว่า target SUEZ plan เติมนเคมีเพิ่มอีกครั้งในวันที่ 13/1/65

Cutter#1(HIPS) and Cutter#2 (GPPS)

Cutter-1 (HIPS):ค่า pH สูงและน้ำปรับเพิ่ม blowdown และควบคุม pH ไว้ในไว้เกิน 8.5 เพื่อป้องกันการเกิด Scaling ที่ tube side ละ

Cutter-2 (GPPS):ค่า pH สูงและน้ำปรับเพิ่ม blowdown และควบคุม pH ไว้ในไว้เกิน 8.5 เพื่อป้องกันการเกิด Scaling ที่ tube side ละ

### 1). Cooling Water Treatments

| Parameters                                | Make up Water | M/U Control target | CW1(HIPS) | CW2(GPPS) | CW Control range |
|---|---------------|--------------------|-----------|-----------|------------------|
| pH  | 7.08          | 7-8                | 8.41      | 8.45      | 7.8-8.5          |
| Conductivity us/cm                        | 263           |                    | 706       | 736       | < 1,500          |
| Turbidity NTU                             | 0.67          | <1                 | 6.2       | 5.2       | < 20             |
| Calcium hardness ppm as CaCO3             | 48            | 30-45              | 148       | 172       | 60-180           |
| M-Alkalinity ppm as CaCO3                 |               |                    | 140       | 144       |                  |
| Chloride ppm as Cl-                       | 32            | <50                | 84        | 92        | < 200            |
| Silica ppm as SiO2                        | 8.0           | <15                | 20.4      | 22.7      | < 150            |
| Total Iron ppm as Fe                      | 0.020         | <0.1               | 0.070     | 0.120     | < 3              |
| Total Dissolved Solids ppm                |               |                    | 370       | 379       | < 1,300          |
| Oil and Grease ppm                        |               |                    | 0.00      | 0.00      | < 5              |
| COD ppm                                   |               |                    | 34        | 30        | < 96             |
| TSS ppm                                   |               |                    | 8.8       | 4.8       | < 50             |
| Soluble Zinc ppm as Zinc                  |               |                    | 0.28      | 1.26      | > 0.5            |
| Total Zinc ppm as Zinc                    |               |                    | 0.33      | 1.30      | < 5              |
| Phosphate(unfilter) ppm as PO4            |               |                    | 4.1       | 8.8       | 6-10             |
| STP Polymer ppm as STP                    |               |                    | 13.57     | 10.91     | 10-20            |
| Cycle of concentration as SiO2            |               |                    | 2.6       | 2.8       | 3-5              |
| Cycle of concentration as Ca Hardness     |               |                    | 3.1       | 3.6       | 3-5              |
| Bacteria result(MB) cfu/ml                | ผลล่าสุด      | 4-Jan-22           | 340       | 980       | < 100,000        |
| Sulfate Reducing Bacteria (SRB)           | ผลล่าสุด      | 4-Jan-22           | 1         | 1         | Nil              |
| Index for predict status of cooling water |               |                    |           |           | Control          |
| Langelier Saturation Index (LSI)          |               |                    | 0.95      | 1.02      | - 0.5 - 1.5      |
| Blowdown flowrate                         |               |                    | 0.9       | 0.7       | m3./hr.          |

\*\*\* LSI = ค่าคำนวณความอิ่มตัวของน้ำ เปรียบมองค่าความเป็นไปได้อันจะเกิดการกัดกร่อน(Corrosion) หรือเกิดตะกอน(Scaling), LSI > 0 Scaling, ค่า LSI > 1 โอกาสเกิดตะกอนจะยิ่งสูงขึ้น

### 2). Chiller Treatment

| Parameter                       | Chiller#1 (144) | Chiller#2 (145) | Control range |                 |
|---------------------------------|-----------------|-----------------|---------------|-----------------|
| pH                              | 8.78            | 7.99            | > 8.5         |                 |
| Conductivity us/cm              | 4,920           | 7,980           | < 8,000       |                 |
| Total Iron ppm as Fe            | 0.68            | 0.43            | < 3           |                 |
| Nitrite ppm as NO3              | 1,580           | 490             | > 600         | ผลล่าสุด วันที่ |
| Bacteria result cfu/ml          | 1               | 520             | < 100,000     | 4-Jan           |
| Sulfate Reducing Bacteria (SRB) | 1               | 1               | Nil           | 4-Jan           |

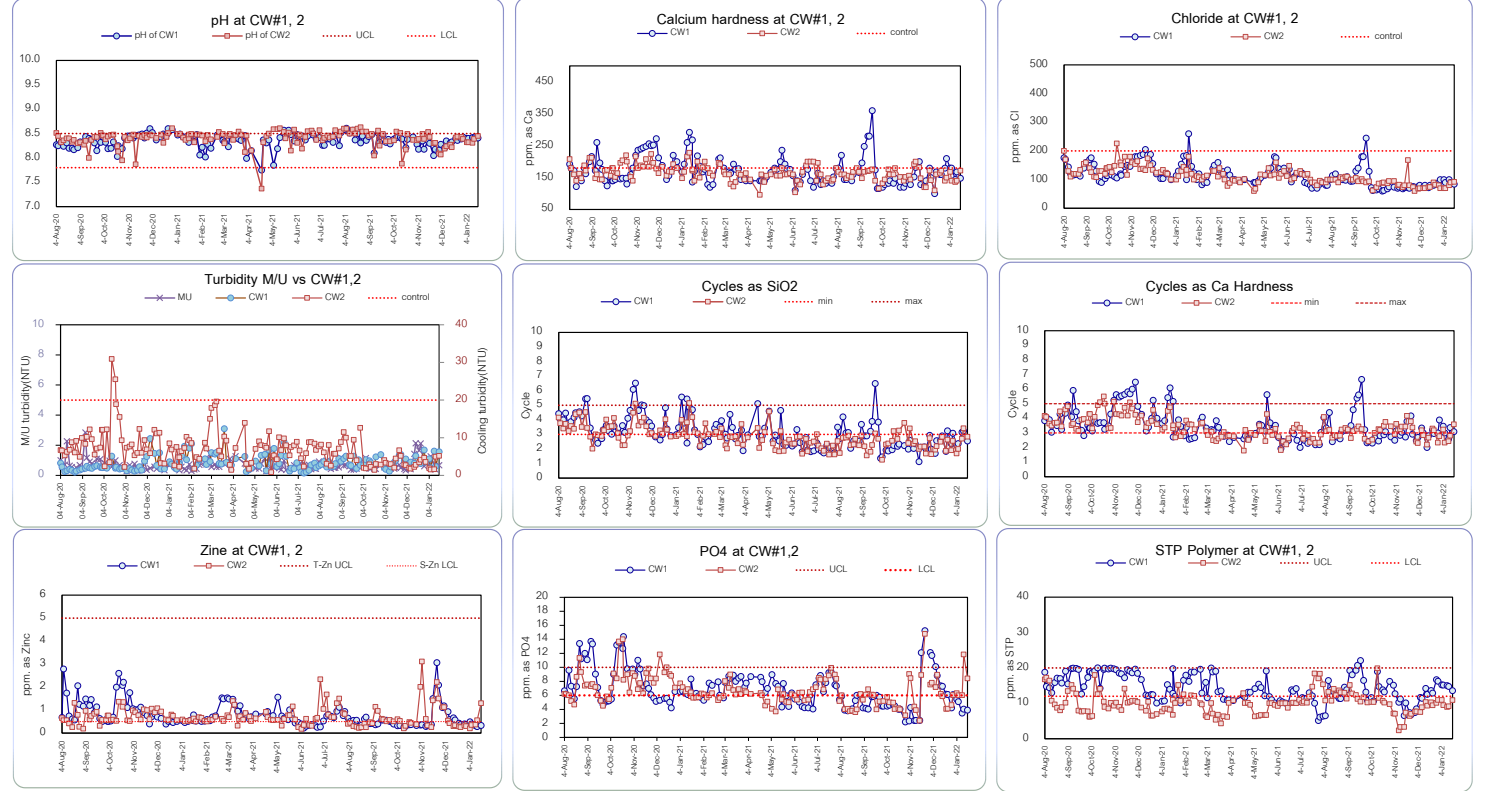
### 3). Cutter Water

| Parameter                        | Cutter-1 (HIPS) | Cutter-2 (GPPS) | Control range |
|----------------------------------|-----------------|-----------------|---------------|
| pH                               | 8.56            | 8.81            | 5.5-9.0       |
| Conductivity us/cm               | 370             | 356             | < 1,500       |
| Turbidity NTU                    | 0.83            | 3.51            |               |
| Calcium hardness ppm as CaCO3    | 62              | 58              |               |
| M-Alkalinity ppm as CaCO3        | 70              | 60              |               |
| Chloride ppm as Cl-              | 47              | 45              |               |
| Silica ppm as SiO2               | 9.4             | 11.2            |               |
| Total Iron ppm as Fe             | 0.01            | 0.07            |               |
| Oil and Grease ppm               | 0.00            | 0.00            | < 5           |
| COD ppm                          | 7               | 12              | < 96          |
| Temperature analysis(°C)         | 26.0            | 26.0            | < 40 °C       |
| Blowdown flowrate                | 1               | -               | m3/hr         |
| Langelier Saturation Index (LSI) | 1.13            | 1.38            | - 0.5 - 1.5   |

### 4). Feeding system

| Chemicals | Stroke / Seed rate |             | Chemicals stock(kgs) |       |
|-----------|--------------------|-------------|----------------------|-------|
|           | CW1 (HIPS)         | CW2 ( GPPS) | Master Tank          | Stock |
| GN8020    | 15/25              | 30/25       | 25                   | 250   |
| MS6209    | 25/25              | 5/25        | 41                   | 70    |
| NX1100    | 2                  | 2           |                      | 38    |
| NT4201    |                    |             |                      | 70    |

### Water Quality Tendency



### 5). Recommendation

#### Make up water :

- คุณภาพ make up water มีค่า Ca อยู่ที 48 ppm. ยังคงค่าเกินกว่า target

#### Cooling#1 HIPS and Cooling#2 GPPS Water

HIPS : คุณภาพน้ำโดยรวมอยู่ในค่าควบคุมและยังคง B/D ไว้ที 0.9 m3/hr. ละ

GPPS : คุณภาพน้ำโดยรวมอยู่ในค่าควบคุมและยังคง B/D ไว้ที 0.7 m3/hr. ละ

#### Chiller#1(144) and Chiller#2(145)

Chiller#144: โดยรวมอยู่ในค่าควบคุม

Chiller#145: pH และค่า Nitrite ยังต่ำกว่า target

#### Cutter#1(HIPS) and Cutter#2 (GPPS)

Cutter-1 (HIPS):ค่า pH สูงและน้ำปนเพิ่ม blowdown และควบคุม pH ไว้ไม่ให้เกิน 8.5 เพื่อป้องกันการเกิด Scaling ที่ tube side ละ

Cutter-2 (GPPS):ค่า pH สูงและน้ำปนเพิ่ม blowdown และควบคุม pH ไว้ไม่ให้เกิน 8.5 เพื่อป้องกันการเกิด Scaling ที่ tube side ละ

Analysis Report for TSCL (Environment)

Sampling Date : January 05, 2022

SCL-Effluent from Water Cutter HIPS ⓘ | 📄

| Sampling Point                      | Sample Name<br>(Description)   | Sample (Status)<br>Request ID | Parameter           | Ethylbenzene  | Styrene   |
|-------------------------------------|--|-------------------------------|---------------------|---|---|
|                                     |  |                               | Unit                | mg/L  | mg/L  |
|                                     |  |                               | Param Type          | Report A  | Report A  |
|                                     |  |                               | Test Method         | US EPA, SW-846 Method 5000-1996 and Method 8015D-2003 | US EPA, SW-846 Method 5000-1996 and Method 8015D-2003 |
|                                     |  |                               | Rep,Variant,Dataset | 1, 3, 1   | 1, 3, 1   |
|                                     |  |                               | Testing Note        |   |   |
| SCL-Effluent from Water Cutter HIPS | Effluent from Water Cutter HIPS<br>(Effluent from Water Cutter HIPS (1/W)) | 2201007458<br>(Completed)     | 05-Jan-2022 08:00   | <1  | <1  |
|                                     |  |                               |                     | 0   | 0   |
| 1/W ; Wed(D-Shift)                  |  |                               |                     |   |   |
| Rev No.1 (August 01, 2020)          |  |                               |                     |   |   |

SCL-Effluent from Water Cutter GPPS ⓘ | 📄

| Sampling Point                      | Sample Name<br>(Description)  | Sample (Status)<br>Request ID | Parameter           | Ethylbenzene  | Styrene   |
|-------------------------------------|---|-------------------------------|---------------------|---|---|
|                                     |   |                               | Unit                | mg/L  | mg/L  |
|                                     |   |                               | Param Type          | Report A  | Report A  |
|                                     |   |                               | Test Method         | US EPA, SW-846 Method 5000-1996 and Method 8015D-2003 | US EPA, SW-846 Method 5000-1996 and Method 8015D-2003 |
|                                     |   |                               | Rep,Variant,Dataset | 1, 3, 1   | 1, 3, 1   |
|                                     |   |                               | Testing Note        |   |   |
| SCL-Effluent from Water Cutter GPPS | Effluent from Water Cutter GPPS<br>(Effluent from Water Cutter GPPS(1/W)) | 2201007457<br>(Completed)     | 05-Jan-2022 08:00   | <1  | <1  |
|                                     |   |                               |                     | 0   | 0   |
| 1/W ; Wed(D-Shift)                  |   |                               |                     |   |   |
| Rev No.1 (August 01, 2020)          |   |                               |                     |   |   |

Analysis Report for TSCL (Environment)

Sampling Date : January 12, 2022

SCL-Effluent from Water Cutter HIPS ⓘ | 📄

| Sampling Point                      | Sample Name<br>(Description)   | Sample (Status)<br>Request ID | Parameter           | Ethylbenzene  | Styrene   |
|-------------------------------------|--|-------------------------------|---------------------|---|---|
|                                     |  |                               | Unit                | mg/L  | mg/L  |
|                                     |  |                               | Param Type          | Report A  | Report A  |
|                                     |  |                               | Test Method         | US EPA, SW-846 Method 5000-1996 and Method 8015D-2003 | US EPA, SW-846 Method 5000-1996 and Method 8015D-2003 |
|                                     |  |                               | Rep,Variant,Dataset | 1, 3, 1   | 1, 3, 1   |
|                                     |  |                               | Testing Note        |   |   |
| SCL-Effluent from Water Cutter HIPS | Effluent from Water Cutter HIPS<br>(Effluent from Water Cutter HIPS (1/W)) | 2201020003<br>(Completed)     | 12-Jan-2022 08:00   | <1  | <1  |
|                                     |  |                               |                     | 0   | 0   |
| 1/W ; Wed(D-Shift)                  |  |                               |                     |   |   |
| Rev No.1 (August 01, 2020)          |  |                               |                     |   |   |

SCL-Effluent from Water Cutter GPPS ⓘ | 📄

| Sampling Point                      | Sample Name<br>(Description)  | Sample (Status)<br>Request ID | Parameter           | Ethylbenzene  | Styrene   |
|-------------------------------------|---|-------------------------------|---------------------|---|---|
|                                     |   |                               | Unit                | mg/L  | mg/L  |
|                                     |   |                               | Param Type          | Report A  | Report A  |
|                                     |   |                               | Test Method         | US EPA, SW-846 Method 5000-1996 and Method 8015D-2003 | US EPA, SW-846 Method 5000-1996 and Method 8015D-2003 |
|                                     |   |                               | Rep,Variant,Dataset | 1, 3, 1   | 1, 3, 1   |
|                                     |   |                               | Testing Note        |   |   |
| SCL-Effluent from Water Cutter GPPS | Effluent from Water Cutter GPPS<br>(Effluent from Water Cutter GPPS(1/W)) | 2201020002<br>(Completed)     | 12-Jan-2022 08:00   | <1  | <1  |
|                                     |   |                               |                     | 0   | 0   |
| 1/W ; Wed(D-Shift)                  |   |                               |                     |   |   |
| Rev No.1 (August 01, 2020)          |   |                               |                     |   |   |



## Analysis Report for TSCL (Environment)

Sampling Date : January 19, 2022

### SCL-Effluent from Water Cutter HIPS ⓘ | 📄

| Sampling Point                      | Sample Name<br>(Description)   | Sample (Status)<br>Request ID | Parameter           | Ethylbenzene  | Styrene   |
|-------------------------------------|--|-------------------------------|---------------------|---|---|
|                                     |  |                               | Unit                | mg/L  | mg/L  |
|                                     |  |                               | Param Type          | Report A  | Report A  |
|                                     |  |                               | Test Method         | US EPA, SW-846 Method 5000-1996 and Method 8015D-2003 | US EPA, SW-846 Method 5000-1996 and Method 8015D-2003 |
|                                     |  |                               | Rep,Variant,Dataset | 1, 3, 1   | 1, 3, 1   |
|                                     |  |                               | Testing Note        |   |   |
| SCL-Effluent from Water Cutter HIPS | Effluent from Water Cutter HIPS<br>(Effluent from Water Cutter HIPS (1/W)) | 2201032663<br>(Completed)     | 19-Jan-2022 08:00   | <1  | <1  |
|                                     |  |                               |                     | 0   | 0   |
| 1/W ; Wed(D-Shift)                  |  |                               |                     |   |   |
| Rev No.1 (August 01, 2020)          |  |                               |                     |   |   |

### SCL-Effluent from Water Cutter GPPS ⓘ | 📄

| Sampling Point                      | Sample Name<br>(Description)  | Sample (Status)<br>Request ID | Parameter           | Ethylbenzene  | Styrene   |
|-------------------------------------|---|-------------------------------|---------------------|---|---|
|                                     |   |                               | Unit                | mg/L  | mg/L  |
|                                     |   |                               | Param Type          | Report A  | Report A  |
|                                     |   |                               | Test Method         | US EPA, SW-846 Method 5000-1996 and Method 8015D-2003 | US EPA, SW-846 Method 5000-1996 and Method 8015D-2003 |
|                                     |   |                               | Rep,Variant,Dataset | 1, 3, 1   | 1, 3, 1   |
|                                     |   |                               | Testing Note        |   |   |
| SCL-Effluent from Water Cutter GPPS | Effluent from Water Cutter GPPS<br>(Effluent from Water Cutter GPPS(1/W)) | 2201032662<br>(Completed)     | 19-Jan-2022 08:00   | <1  | <1  |
|                                     |   |                               |                     | 0   | 0   |
| 1/W ; Wed(D-Shift)                  |   |                               |                     |   |   |
| Rev No.1 (August 01, 2020)          |   |                               |                     |   |   |

## Analysis Report for TSCL (Environment)

Sampling Date : January 26, 2022

### SCL-Effluent from Water Cutter HIPS ⓘ | 📄

| Sampling Point                      | Sample Name<br>(Description)   | Sample (Status)<br>Request ID | Parameter           | Ethylbenzene  | Styrene   |
|-------------------------------------|--|-------------------------------|---------------------|---|---|
|                                     |  |                               | Unit                | mg/L  | mg/L  |
|                                     |  |                               | Param Type          | Report A  | Report A  |
|                                     |  |                               | Test Method         | US EPA, SW-846 Method 5000-1996 and Method 8015D-2003 | US EPA, SW-846 Method 5000-1996 and Method 8015D-2003 |
|                                     |  |                               | Rep,Variant,Dataset | 1, 3, 1   | 1, 3, 1   |
|                                     |  |                               | Testing Note        |   |   |
| SCL-Effluent from Water Cutter HIPS | Effluent from Water Cutter HIPS<br>(Effluent from Water Cutter HIPS (1/W)) | 2201045058<br>(Completed)     | 26-Jan-2022 08:00   | <1  | <1  |
|                                     |  |                               |                     | 0   | 0   |
| 1/W ; Wed(D-Shift)                  |  |                               |                     |   |   |
| Rev No.1 (August 01, 2020)          |  |                               |                     |   |   |

### SCL-Effluent from Water Cutter GPPS ⓘ | 📄

| Sampling Point                      | Sample Name<br>(Description)  | Sample (Status)<br>Request ID | Parameter           | Ethylbenzene  | Styrene   |
|-------------------------------------|---|-------------------------------|---------------------|---|---|
|                                     |   |                               | Unit                | mg/L  | mg/L  |
|                                     |   |                               | Param Type          | Report A  | Report A  |
|                                     |   |                               | Test Method         | US EPA, SW-846 Method 5000-1996 and Method 8015D-2003 | US EPA, SW-846 Method 5000-1996 and Method 8015D-2003 |
|                                     |   |                               | Rep,Variant,Dataset | 1, 3, 1   | 1, 3, 1   |
|                                     |   |                               | Testing Note        |   |   |
| SCL-Effluent from Water Cutter GPPS | Effluent from Water Cutter GPPS<br>(Effluent from Water Cutter GPPS(1/W)) | 2201045057<br>(Completed)     | 26-Jan-2022 08:00   | <1  | <1  |
|                                     |   |                               |                     | 0   | 0   |
| 1/W ; Wed(D-Shift)                  |   |                               |                     |   |   |
| Rev No.1 (August 01, 2020)          |   |                               |                     |   |   |