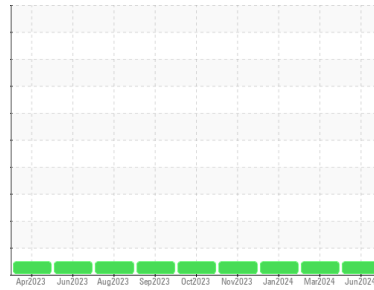




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Area  
**WOOD PROCESSING EQUIPMENT**  
 Machine Id  
**PLANER MAIN**  
 Component  
**Hydraulic System**  
 Fluid  
**SHELL AW HYDRAULIC S2 46 (--- GAL)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

#### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

### SAMPLE INFORMATION

| method        | limit/base  | current            | history1    | history2    |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | <b>PE0003619</b>   | PE0000695   | PE0000735   |
| Sample Date   | Client Info | <b>07 Jun 2024</b> | 15 Mar 2024 | 25 Jan 2024 |
| Machine Age   | hrs         | Client Info        | <b>0</b>    | 0           |
| Oil Age       | hrs         | Client Info        | <b>0</b>    | 0           |
| Oil Changed   | Client Info | <b>N/A</b>         | N/A         | N/A         |
| Sample Status |             | <b>NORMAL</b>      | NORMAL      | NORMAL      |

### CONTAMINATION

| method | limit/base      | current    | history1 | history2 |
|--------|-----------------|------------|----------|----------|
| Water  | WC Method >0.05 | <b>NEG</b> | NEG      | NEG      |

### WEAR METALS

| method   | limit/base | current         | history1     | history2 |
|----------|------------|-----------------|--------------|----------|
| PQ       | ASTM D8184 | <b>20</b>       | 14           | 12       |
| Iron     | ppm        | ASTM D5185m >20 | <b>&lt;1</b> | 0        |
| Chromium | ppm        | ASTM D5185m >20 | <b>&lt;1</b> | 0        |
| Nickel   | ppm        | ASTM D5185m >20 | <b>0</b>     | 0        |
| Titanium | ppm        | ASTM D5185m     | <b>0</b>     | <1       |
| Silver   | ppm        | ASTM D5185m     | <b>0</b>     | 0        |
| Aluminum | ppm        | ASTM D5185m >20 | <b>2</b>     | 3        |
| Lead     | ppm        | ASTM D5185m >20 | <b>0</b>     | <1       |
| Copper   | ppm        | ASTM D5185m >20 | <b>1</b>     | 1        |
| Tin      | ppm        | ASTM D5185m >20 | <b>0</b>     | <1       |
| Vanadium | ppm        | ASTM D5185m     | <b>0</b>     | <1       |
| Cadmium  | ppm        | ASTM D5185m     | <b>0</b>     | <1       |

### ADDITIVES

| method     | limit/base | current     | history1    | history2 |
|------------|------------|-------------|-------------|----------|
| Boron      | ppm        | ASTM D5185m | <b>3</b>    | 0        |
| Barium     | ppm        | ASTM D5185m | <b>0</b>    | <1       |
| Molybdenum | ppm        | ASTM D5185m | <b>0</b>    | 0        |
| Manganese  | ppm        | ASTM D5185m | <b>0</b>    | 0        |
| Magnesium  | ppm        | ASTM D5185m | <b>11</b>   | 10       |
| Calcium    | ppm        | ASTM D5185m | <b>122</b>  | 90       |
| Phosphorus | ppm        | ASTM D5185m | <b>302</b>  | 270      |
| Zinc       | ppm        | ASTM D5185m | <b>339</b>  | 313      |
| Sulfur     | ppm        | ASTM D5185m | <b>1147</b> | 932      |

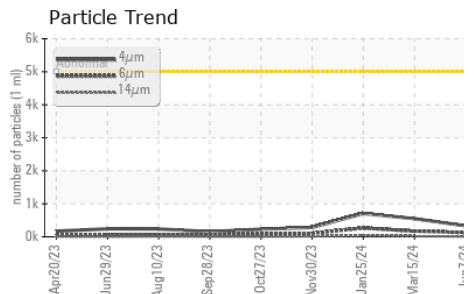
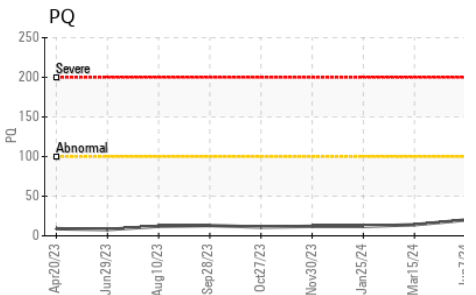
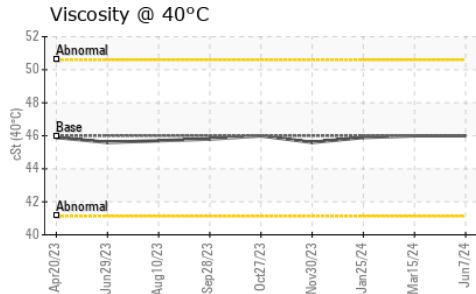
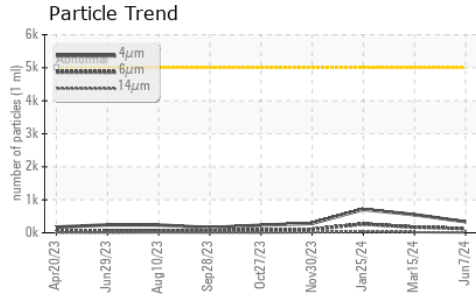
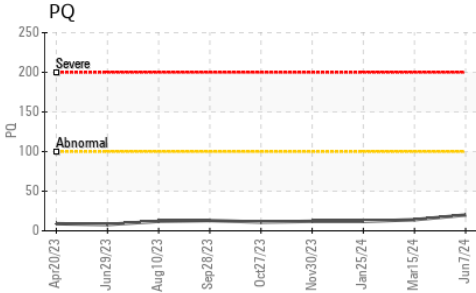
### CONTAMINANTS

| method    | limit/base | current         | history1     | history2 |
|-----------|------------|-----------------|--------------|----------|
| Silicon   | ppm        | ASTM D5185m >15 | <b>&lt;1</b> | <1       |
| Sodium    | ppm        | ASTM D5185m     | <b>0</b>     | <1       |
| Potassium | ppm        | ASTM D5185m >20 | <b>&lt;1</b> | 1        |

### FLUID CLEANLINESS

| method          | limit/base             | current         | history1 | history2 |
|-----------------|------------------------|-----------------|----------|----------|
| Particles >4µm  | ASTM D7647 >5000       | <b>334</b>      | 549      | 708      |
| Particles >6µm  | ASTM D7647 >1300       | <b>124</b>      | 172      | 268      |
| Particles >14µm | ASTM D7647 >160        | <b>7</b>        | 18       | 30       |
| Particles >21µm | ASTM D7647 >40         | <b>0</b>        | 4        | 8        |
| Particles >38µm | ASTM D7647 >10         | <b>0</b>        | 0        | 0        |
| Particles >71µm | ASTM D7647 >3          | <b>0</b>        | 0        | 0        |
| Oil Cleanliness | ISO 4406 (c) >19/17/14 | <b>16/14/10</b> | 16/15/11 | 17/15/12 |

# OIL ANALYSIS REPORT

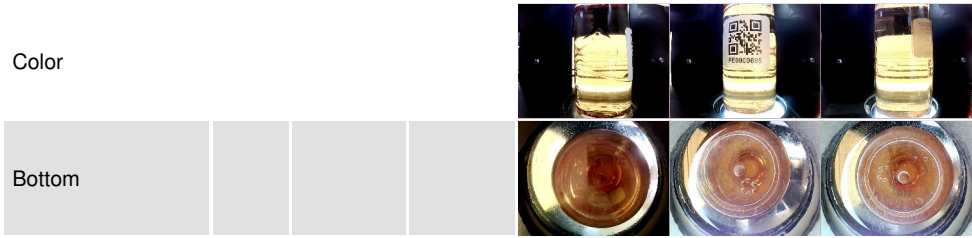


| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 |            | <b>0.30</b> | 0.30     | 0.30     |

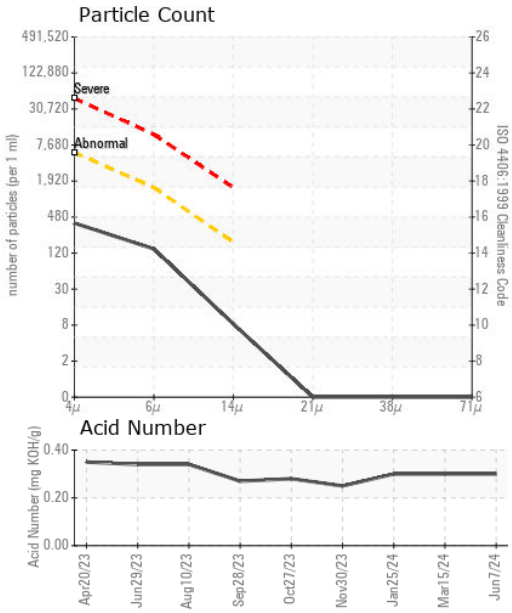
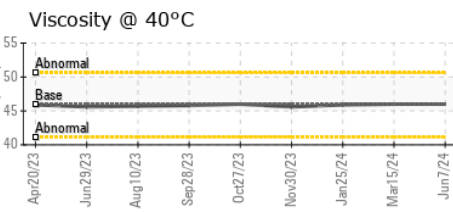
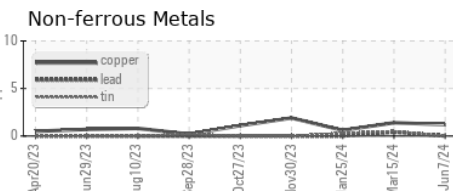
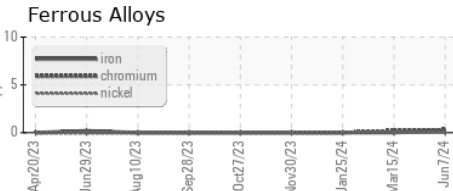
| VISUAL           |        | method  | limit/base | current      | history1 | history2 |
|------------------|--------|---------|------------|--------------|----------|----------|
| White Metal      | scalar | *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Precipitate      | scalar | *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Silt             | scalar | *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Debris           | scalar | *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Appearance       | scalar | *Visual | NORML      | <b>NORML</b> | NORML    | NORML    |
| Odor             | scalar | *Visual | NORML      | <b>NORML</b> | NORML    | NORML    |
| Emulsified Water | scalar | *Visual | >0.05      | <b>NEG</b>   | NEG      | NEG      |
| Free Water       | scalar | *Visual |            | <b>NEG</b>   | NEG      | NEG      |

| FLUID PROPERTIES |     | method    | limit/base | current     | history1 | history2 |
|------------------|-----|-----------|------------|-------------|----------|----------|
| Visc @ 40°C      | cSt | ASTM D445 | 46         | <b>46.0</b> | 46.0     | 45.9     |

| SAMPLE IMAGES |  | method | limit/base | current | history1 | history2 |
|---------------|--|--------|------------|---------|----------|----------|
|---------------|--|--------|------------|---------|----------|----------|



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PE0003619  
**Lab Number** : **06214527**  
**Unique Number** : 11087391  
**Test Package** : PLANT ( Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN )

**WEYERHAEUSER - RAYMOND LUMBER**  
 1740 51 ELLIS ST  
 RAYMOND, WA  
 US 98577  
 Contact: JOHNNY DOMINGUEZ  
 johnny.dominguez@weyerhaeuser.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)