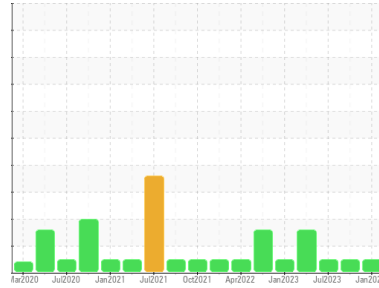




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**CENTRIFUGES**  
 Machine Id  
**Q-602 - CENTRIFUGE 2**  
 Component  
**Circulating System**  
 Fluid  
**MOBIL SHC 626 (15 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

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

### 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>WC0896661</b>   | WC0871614   | WC0835503   |
| Sample Date        | Client Info |             |            | <b>12 Jan 2024</b> | 23 Oct 2023 | 06 Jul 2023 |
| Machine Age        | mths        | Client Info |            | <b>240</b>         | 240         | 240         |
| Oil Age            | mths        | Client Info |            | <b>240</b>         | 0           | 16          |
| Oil Changed        | Client Info |             |            | <b>N/A</b>         | N/A         | Not Chngd   |
| Sample Status      |             |             |            | <b>NORMAL</b>      | NORMAL      | NORMAL      |

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

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m |            | <b>17</b>    | 15       | 19       |
| Chromium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | <1       |
| Nickel      | ppm | ASTM D5185m |            | <b>0</b>     | <1       | 0        |
| Titanium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Silver      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Aluminum    | ppm | ASTM D5185m |            | <b>1</b>     | 0        | 1        |
| Lead        | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Copper      | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |
| Tin         | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |

| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Barium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>0</b>     | <1       | <1       |
| Magnesium  | ppm | ASTM D5185m |            | <b>0</b>     | 4        | 0        |
| Calcium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | 0        |
| Phosphorus | ppm | ASTM D5185m |            | <b>462</b>   | 473      | 454      |
| Zinc       | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Sulfur     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 29       |

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

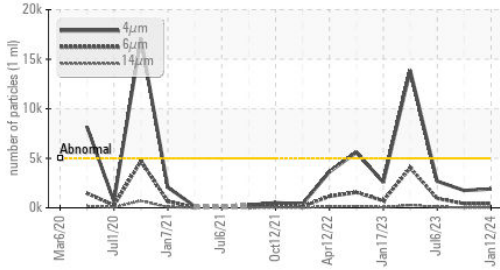
| FLUID CLEANLINESS |  | method       | limit/base | current         | history1 | history2 |
|-------------------|--|--------------|------------|-----------------|----------|----------|
| Particles >4µm    |  | ASTM D7647   | >5000      | <b>1899</b>     | 1752     | 2680     |
| Particles >6µm    |  | ASTM D7647   | >1300      | <b>415</b>      | 415      | 941      |
| Particles >14µm   |  | ASTM D7647   | >160       | <b>34</b>       | 29       | 84       |
| Particles >21µm   |  | ASTM D7647   | >40        | <b>10</b>       | 5        | 14       |
| Particles >38µm   |  | ASTM D7647   | >10        | <b>1</b>        | 0        | 0        |
| Particles >71µm   |  | ASTM D7647   | >3         | <b>1</b>        | 0        | 0        |
| Oil Cleanliness   |  | ISO 4406 (c) | >19/17/14  | <b>18/16/12</b> | 18/16/12 | 19/17/14 |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 |            | <b>0.37</b> | 0.33     | 0.34     |

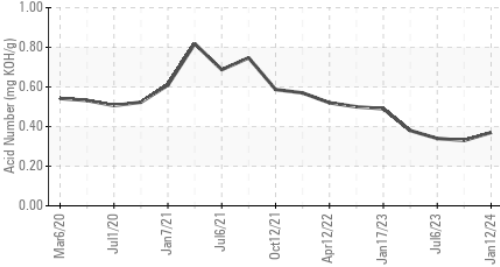


# OIL ANALYSIS REPORT

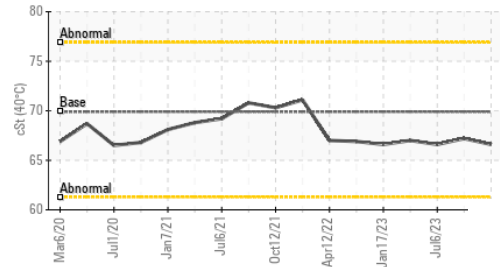
**Particle Trend**



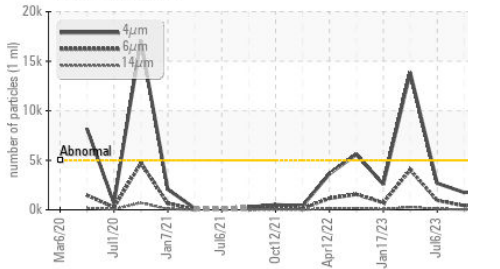
**Acid Number**



**Viscosity @ 40°C**



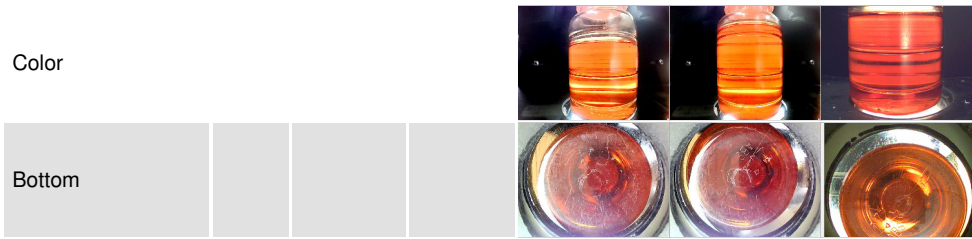
**Particle Trend**



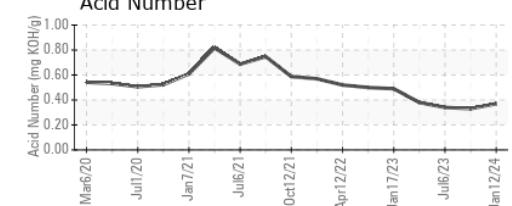
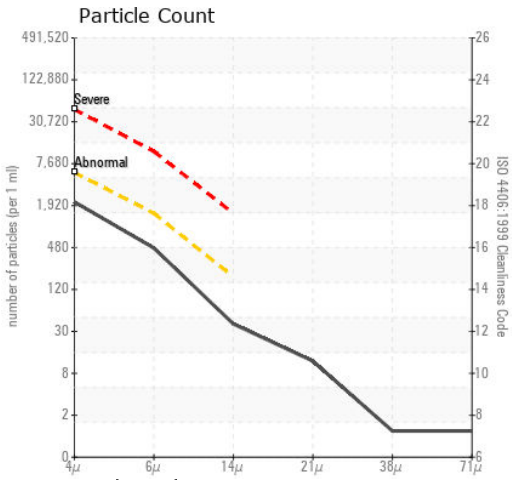
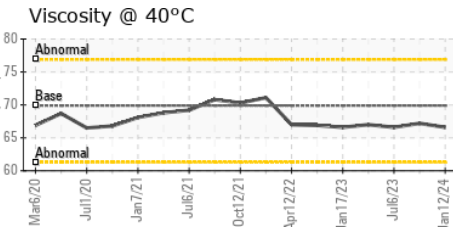
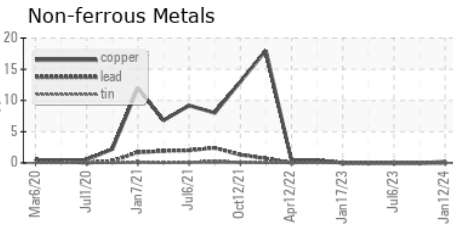
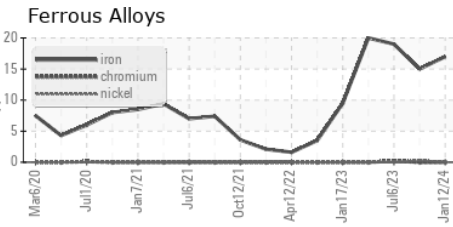
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
|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

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 69.9    | 66.6     | 67.2     |

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



## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0896661 **Received** : 17 Jan 2024  
**Lab Number** : 06062612 **Diagnosed** : 19 Jan 2024  
**Unique Number** : 10833994 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: PrtCount )

**POET BIOREFINING - Groton**  
 40425 133RD STREET  
 GROTON, SD  
 US 57445-6400  
 Contact: GAVIN KRUEGER  
 Gavin.Krueger@POET.COM  
 T: 6(05) 846-6863  
 F: (605)397-2754

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)