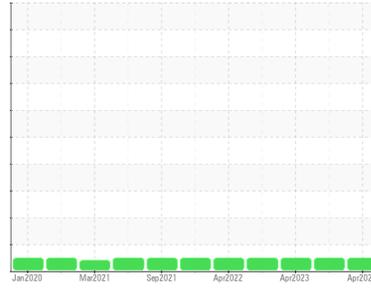




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**MILLING**  
 Machine Id  
**C-114**  
 Component  
**Gearbox**  
 Fluid  
**MOBIL SHC 630 (--- LTR)**

## 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>WC0919954</b>   | WC0854679   | WC0809610   |
| Sample Date   | Client Info      | <b>02 Apr 2024</b> | 06 Sep 2023 | 12 Apr 2023 |
| Machine Age   | mths Client Info | <b>0</b>           | 0           | 0           |
| Oil Age       | mths Client Info | <b>0</b>           | 18          | 13          |
| Oil Changed   | Client Info      | <b>N/A</b>         | Not Changd  | Not Changd  |
| Sample Status |                  | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## CONTAMINATION

| method | limit/base     | current    | history1 | history2 |
|--------|----------------|------------|----------|----------|
| Water  | WC Method >0.2 | <b>NEG</b> | NEG      | NEG      |

## WEAR METALS

| method   | limit/base           | current      | history1 | history2 |
|----------|----------------------|--------------|----------|----------|
| Iron     | ppm ASTM D5185m >200 | <b>17</b>    | 16       | 25       |
| Chromium | ppm ASTM D5185m >15  | <b>&lt;1</b> | 0        | 0        |
| Nickel   | ppm ASTM D5185m >15  | <b>0</b>     | <1       | 0        |
| Titanium | ppm ASTM D5185m      | <b>&lt;1</b> | 0        | 0        |
| Silver   | ppm ASTM D5185m      | <b>0</b>     | 0        | 0        |
| Aluminum | ppm ASTM D5185m >25  | <b>2</b>     | <1       | 0        |
| Lead     | ppm ASTM D5185m >100 | <b>0</b>     | 0        | 0        |
| Copper   | ppm ASTM D5185m >200 | <b>&lt;1</b> | <1       | 0        |
| Tin      | ppm ASTM D5185m >25  | <b>&lt;1</b> | <1       | 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>&lt;1</b> | <1       | <1       |
| Magnesium  | ppm ASTM D5185m | <b>&lt;1</b> | <1       | 2        |
| Calcium    | ppm ASTM D5185m | <b>4</b>     | 3        | 1        |
| Phosphorus | ppm ASTM D5185m | <b>424</b>   | 517      | 449      |
| Zinc       | ppm ASTM D5185m | <b>2</b>     | 0        | 0        |
| Sulfur     | ppm ASTM D5185m | <b>0</b>     | 15       | 0        |

## CONTAMINANTS

| method    | limit/base          | current   | history1 | history2 |
|-----------|---------------------|-----------|----------|----------|
| Silicon   | ppm ASTM D5185m >50 | <b>39</b> | 33       | 37       |
| Sodium    | ppm ASTM D5185m     | <b>0</b>  | 0        | 0        |
| Potassium | ppm ASTM D5185m >20 | <b>2</b>  | 0        | 0        |

## FLUID CLEANLINESS

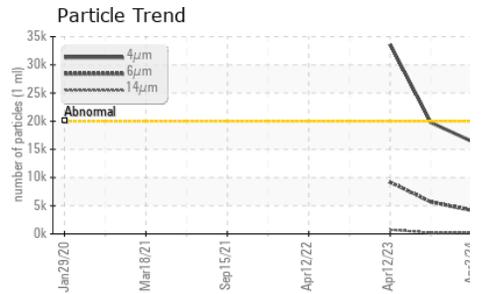
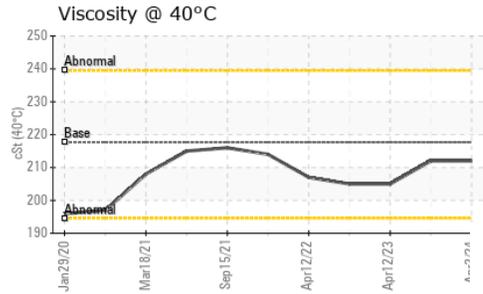
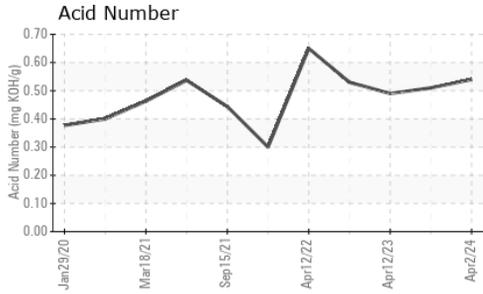
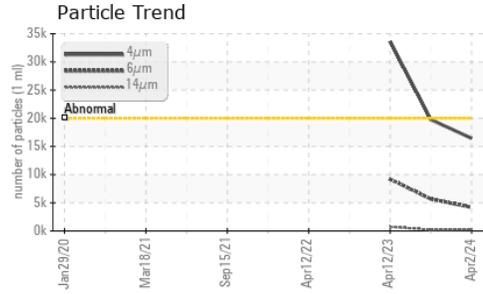
| method          | limit/base             | current         | history1 | history2 |
|-----------------|------------------------|-----------------|----------|----------|
| Particles >4µm  | ASTM D7647 >20000      | <b>16444</b>    | 19757    | 33613    |
| Particles >6µm  | ASTM D7647 >5000       | <b>4185</b>     | 5674     | 9193     |
| Particles >14µm | ASTM D7647 >640        | <b>254</b>      | 170      | 751      |
| Particles >21µm | ASTM D7647 >160        | <b>28</b>       | 14       | 96       |
| Particles >38µm | ASTM D7647 >40         | <b>0</b>        | 0        | 4        |
| Particles >71µm | ASTM D7647 >10         | <b>0</b>        | 0        | 0        |
| Oil Cleanliness | ISO 4406 (c) >21/19/16 | <b>21/19/15</b> | 21/20/15 | 22/20/17 |

## FLUID DEGRADATION

| method           | limit/base          | current     | history1 | history2 |
|------------------|---------------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g ASTM D8045 | <b>0.54</b> | 0.51     | 0.49     |



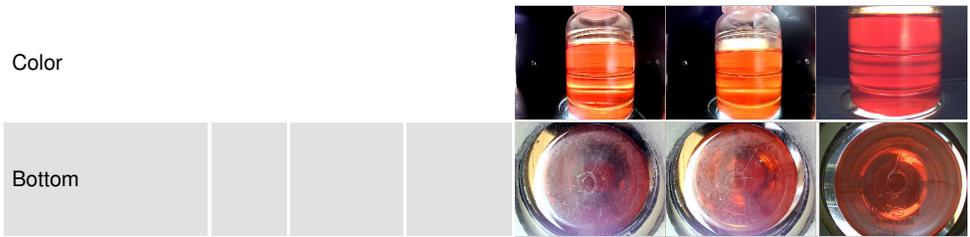
# OIL ANALYSIS REPORT



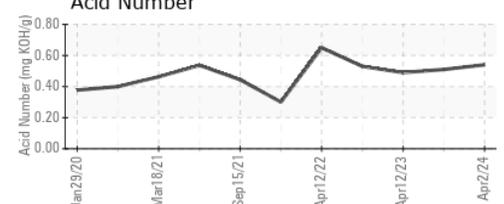
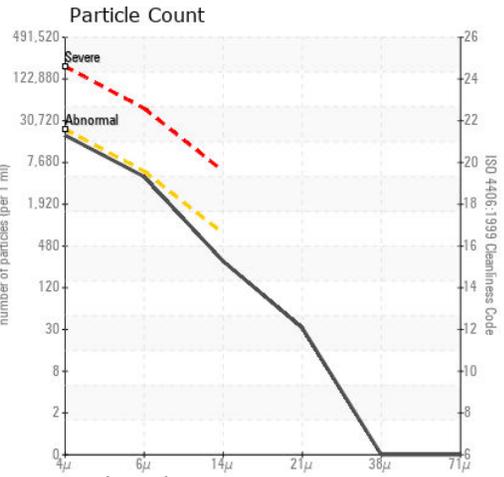
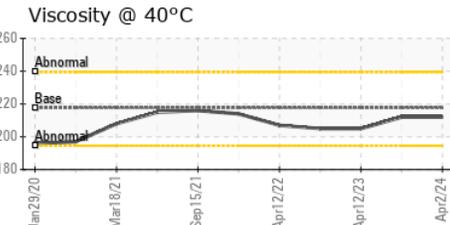
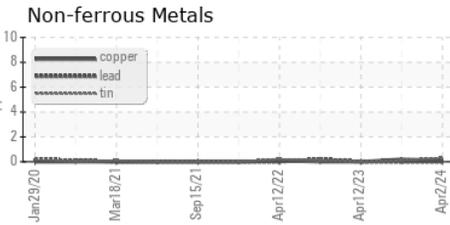
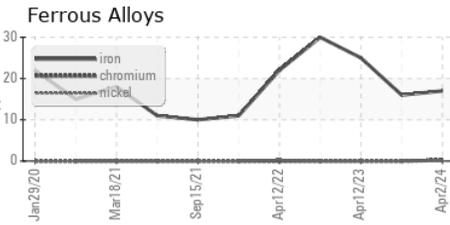
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | LIGHT    |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual    | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.2    | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 217.7   | 212      | 205      |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0919954      **Received** : 04 Apr 2024  
**Lab Number** : 06138526      **Tested** : 05 Apr 2024  
**Unique Number** : 10963334      **Diagnosed** : 06 Apr 2024 - Don Baldrige  
**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)