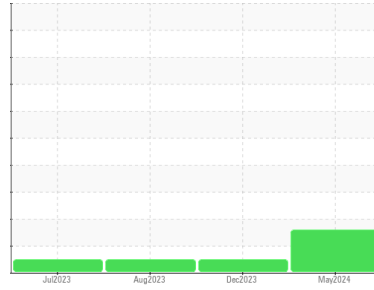




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Area
DDGS
 Machine Id
C-849-2
 Component
Gearbox
 Fluid
MOBIL SHC 630 (2 LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

Viscosity of sample indicates oil is within ISO 150 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | | WC0940994 | WC0887407 | WC0849101 |
| Sample Date | Client Info | | | 09 May 2024 | 19 Dec 2023 | 17 Aug 2023 |
| Machine Age | mths | Client Info | | 0 | 0 | 0 |
| Oil Age | mths | Client Info | | 0 | 0 | 0 |
| Oil Changed | Client Info | | | N/A | N/A | N/A |
| Sample Status | | | | ABNORMAL | NORMAL | NORMAL |

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

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >200 | 29 | 101 | <1 |
| Chromium | ppm | ASTM D5185m | >15 | <1 | <1 | 0 |
| Nickel | ppm | ASTM D5185m | >15 | <1 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 2 | 2 | 0 |
| Lead | ppm | ASTM D5185m | >100 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >200 | <1 | 0 | 0 |
| Tin | ppm | ASTM D5185m | >25 | <1 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | <1 | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Calcium | ppm | ASTM D5185m | | 1 | 1 | 0 |
| Phosphorus | ppm | ASTM D5185m | | 530 | 496 | 441 |
| Zinc | ppm | ASTM D5185m | | 1 | 0 | <1 |
| Sulfur | ppm | ASTM D5185m | | 205 | 40 | 13 |

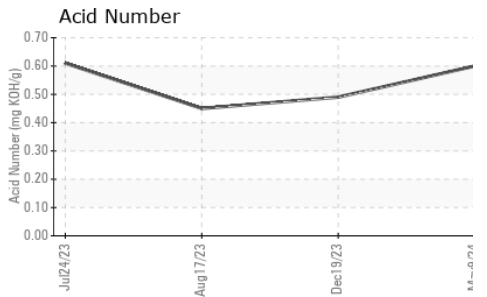
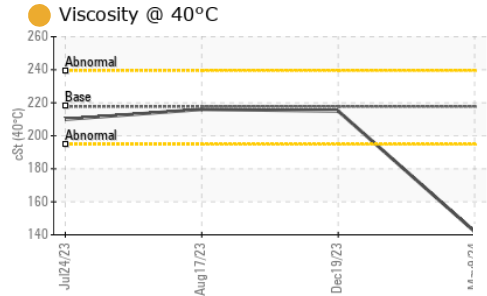
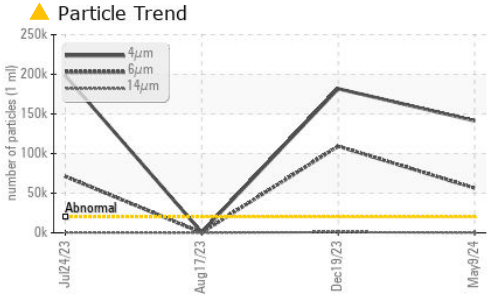
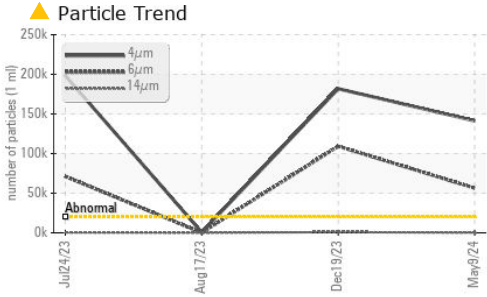
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|-----------|----------|----------|
| Silicon | ppm | ASTM D5185m | >50 | 21 | 38 | 22 |
| Sodium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 1 | <1 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|-------------------|--|--------------|------------|-------------------|----------|----------|
| Particles >4µm | | ASTM D7647 | >20000 | ▲ 141373 | 181819 | 589 |
| Particles >6µm | | ASTM D7647 | >5000 | ▲ 56382 | 109246 | 127 |
| Particles >14µm | | ASTM D7647 | >640 | 186 | 899 | 8 |
| Particles >21µm | | ASTM D7647 | >160 | 32 | 66 | 3 |
| Particles >38µm | | ASTM D7647 | >40 | 2 | 4 | 1 |
| Particles >71µm | | ASTM D7647 | >10 | 0 | 1 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >21/19/16 | ▲ 24/23/15 | 25/24/17 | 16/14/10 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.60 | 0.49 | 0.45 |



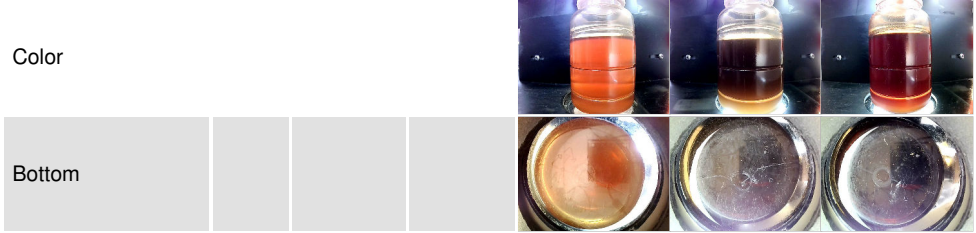
OIL ANALYSIS REPORT



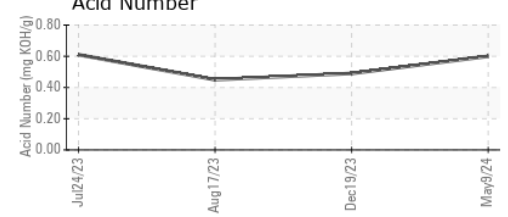
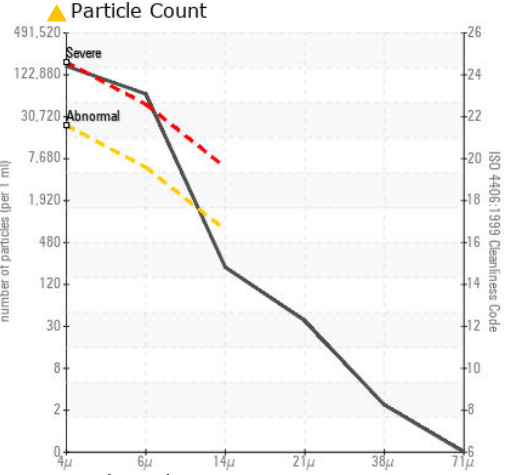
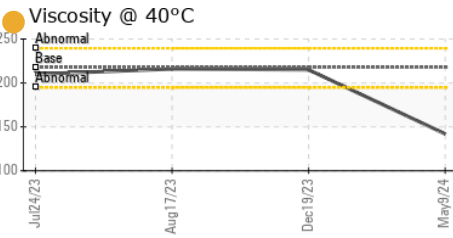
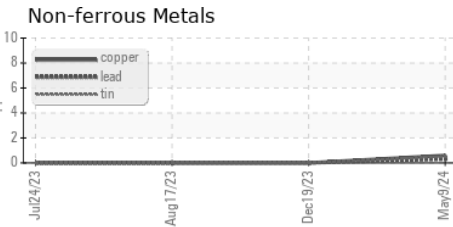
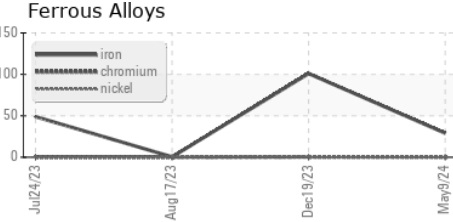
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | LIGHT |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | 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 | >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 ● 142 | 215 | 216 |

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



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0940994 **Received** : 15 May 2024
Lab Number : 06180150 **Tested** : 23 May 2024
Unique Number : 11031476 **Diagnosed** : 23 May 2024 - 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)