



OIL ANALYSIS REPORT

| | |
|-----------------|--------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |

Area
COSTCO 1414 [MC-00137-1]
 Machine Id
410000047747 RACK D (S/N CMP1912004-4)
 Component
Reciprocating Compressor
 Fluid
BITZER BSE 85K (12 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WC0907719 | WC0789045 | WC0668558 |
| Sample Date | | Client Info | | 20 Feb 2024 | 13 Mar 2023 | 07 Feb 2022 |
| Machine Age | yrs | Client Info | | 4 | 3 | 1 |
| Oil Age | yrs | Client Info | | 4 | 3 | 1 |
| Filter Age | yrs | Client Info | | 1 | 1 | 1 |
| Oil Changed | | Client Info | | Filtered | Filtered | Filtered |
| Filter Changed | | Client Info | | Changed | Changed | Cleaned |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|---------------|------|--------------|------|------|
| PQ | | ASTM D8184* | | 0 | 0 | 0 |
| Iron | ppm | ASTM D5185(m) | >50 | 0 | 0 | 0 |
| Chromium | ppm | ASTM D5185(m) | >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | | <1 | <1 | <1 |
| Titanium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >25 | <1 | 0 | 0 |
| Lead | ppm | ASTM D5185(m) | >25 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185(m) | >50 | 0 | 0 | <1 |
| Tin | ppm | ASTM D5185(m) | >15 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| White Metal | scalar | Visual* | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | Visual* | NONE | NONE | NONE | NONE |

CONTAMINATION

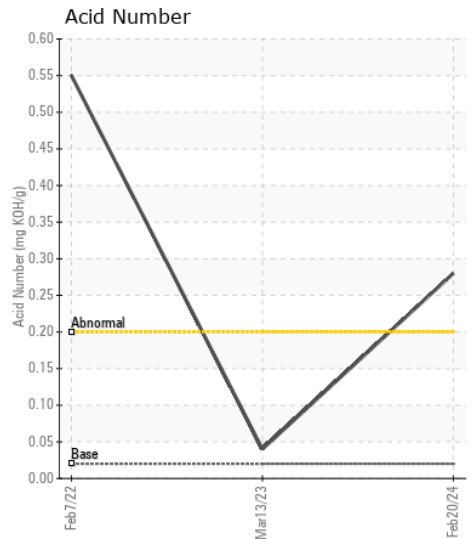
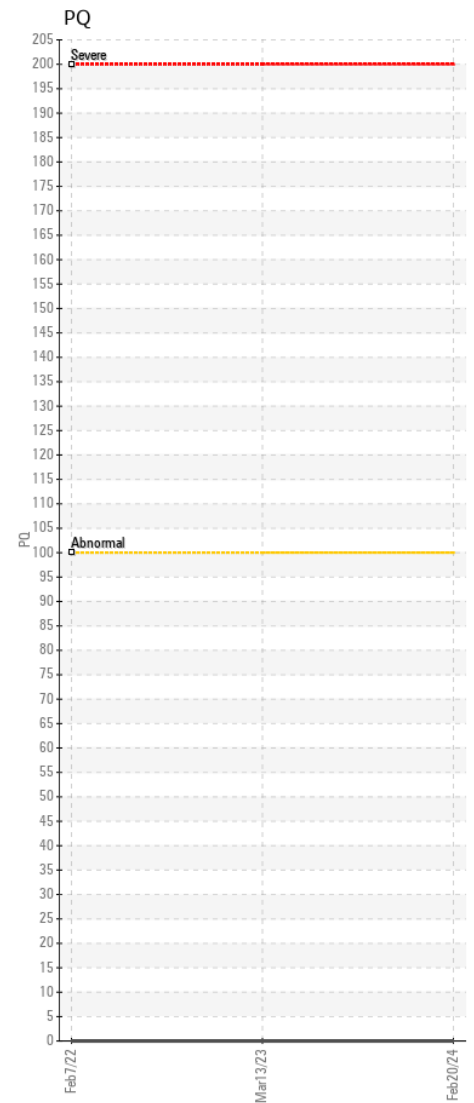
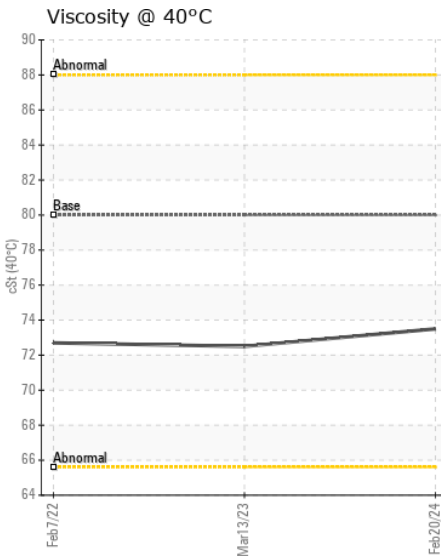
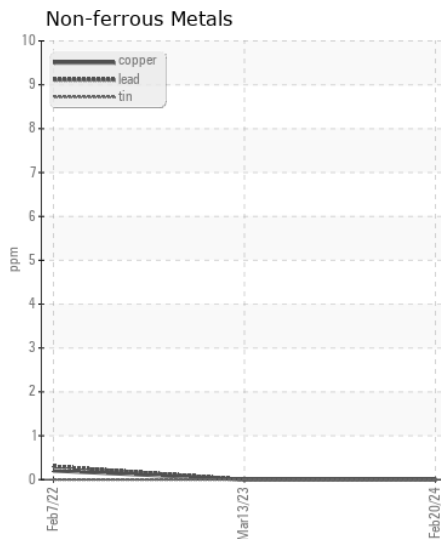
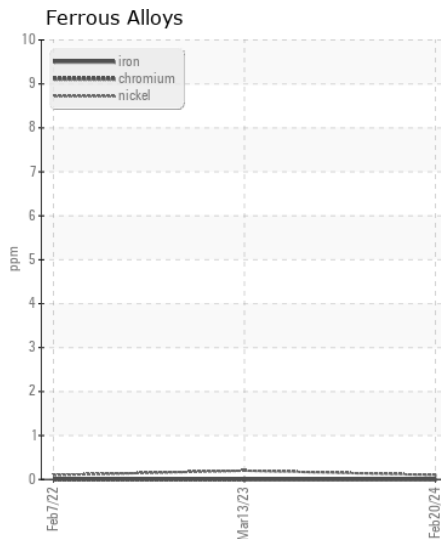
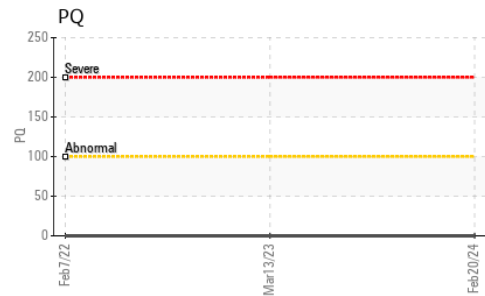
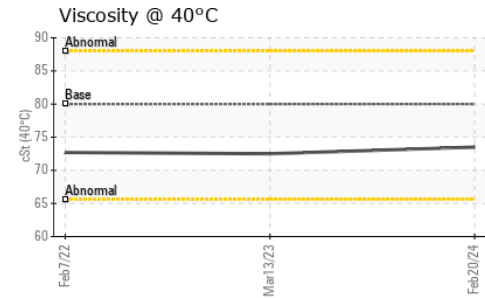
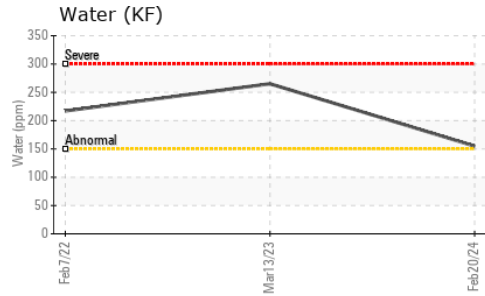
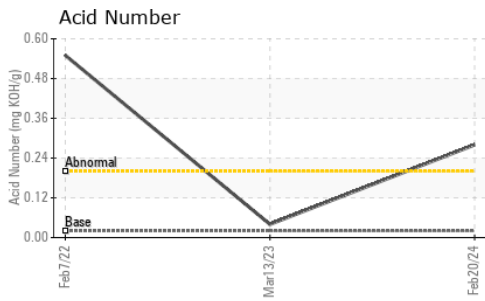
The water content is negligible. There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|--------|---------------|--------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185(m) | >25 | 1 | 2 | 2 |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | <1 | <1 |
| Water | % | ASTM D6304* | >0.015 | 0.015 | 0.026 | 0.021 |
| ppm Water | ppm | ASTM D6304* | >150 | 155 | 265.1 | 217.1 |
| Silt | scalar | Visual* | NONE | NONE | NONE | NONE |
| Debris | scalar | Visual* | NONE | NONE | NONE | VLITE |
| Sand/Dirt | scalar | Visual* | NONE | NONE | NONE | NONE |
| Appearance | scalar | Visual* | NORML | NORML | NORML | NORML |
| Odor | scalar | Visual* | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | Visual* | >0.015 | .2% | NEG | .2% |

FLUID CONDITION

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

| | | | | | | |
|------------------|----------|---------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185(m) | | <1 | <1 | 0 |
| Boron | ppm | ASTM D5185(m) | 0 | 0 | <1 | <1 |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 0 | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) | 0 | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | 0 | <1 | 0 | 0 |
| Calcium | ppm | ASTM D5185(m) | 0 | 0 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185(m) | 1200 | 1200 | 1297 | 1262 |
| Zinc | ppm | ASTM D5185(m) | 0 | <1 | <1 | <1 |
| Sulfur | ppm | ASTM D5185(m) | 0 | 0 | 4 | 46 |
| Acid Number (AN) | mg KOH/g | ASTM D974* | 0.02 | 0.28 | 0.04 | 0.55 |
| Visc @ 40°C | cSt | ASTM D7279(m) | 80 | 73.5 | 72.5 | 72.7 |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0907719 **Received** : 21 Feb 2024
Lab Number : 02617080 **Tested** : 22 Feb 2024
Unique Number : 5734190 **Diagnosed** : 23 Feb 2024 - Kevin Marson
Test Package : IND 2 (Additional Tests: KF, TAN Man)

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.