



Built for a lifetime™

# OIL ANALYSIS REPORT

|                 |               |
|-----------------|---------------|
| WEAR            | <b>NORMAL</b> |
| CONTAMINATION   | <b>NORMAL</b> |
| FLUID CONDITION | <b>NORMAL</b> |

Machine Id  
**KAESER DSD150 8751566 (S/N 1223)**

Component  
**Compressor**

Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>KC105600</b>    | KC107988    | KC107995    |
| Sample Date    |     | Client Info |           | <b>25 Feb 2024</b> | 03 Jul 2023 | 25 Mar 2023 |
| Machine Age    | hrs | Client Info |           | <b>6023</b>        | 13901       | 2007        |
| Oil Age        | hrs | Client Info |           | <b>4023</b>        | 2378        | 2007        |
| Filter Age     | hrs | Client Info |           | <b>2000</b>        | 2378        | 2007        |
| Oil Changed    |     | Client Info |           | <b>Not Changed</b> | Not Changed | Changed     |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## WEAR

All component wear rates are normal.

|              |        |             |      |             |      |      |
|--------------|--------|-------------|------|-------------|------|------|
| Iron         | ppm    | ASTM D5185m | >50  | <b>0</b>    | 0    | <1   |
| Chromium     | ppm    | ASTM D5185m | >10  | <b>0</b>    | 0    | 0    |
| Nickel       | ppm    | ASTM D5185m | >3   | <b>0</b>    | 0    | 0    |
| Titanium     | ppm    | ASTM D5185m | >3   | <b>0</b>    | 0    | 0    |
| Silver       | ppm    | ASTM D5185m | >2   | <b>0</b>    | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >10  | <b>0</b>    | 1    | <1   |
| Lead         | ppm    | ASTM D5185m | >10  | <b>0</b>    | 0    | 0    |
| Copper       | ppm    | ASTM D5185m | >50  | <b>16</b>   | 6    | 1    |
| Tin          | ppm    | ASTM D5185m | >10  | <b>0</b>    | 0    | 0    |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>    | <1   | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b> | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b> | NONE | NONE |

## CONTAMINATION

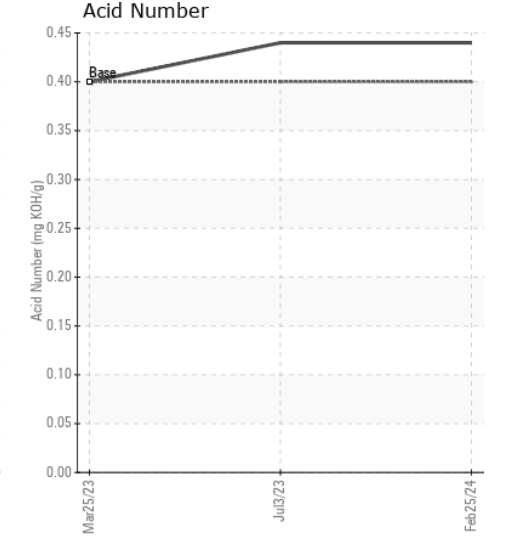
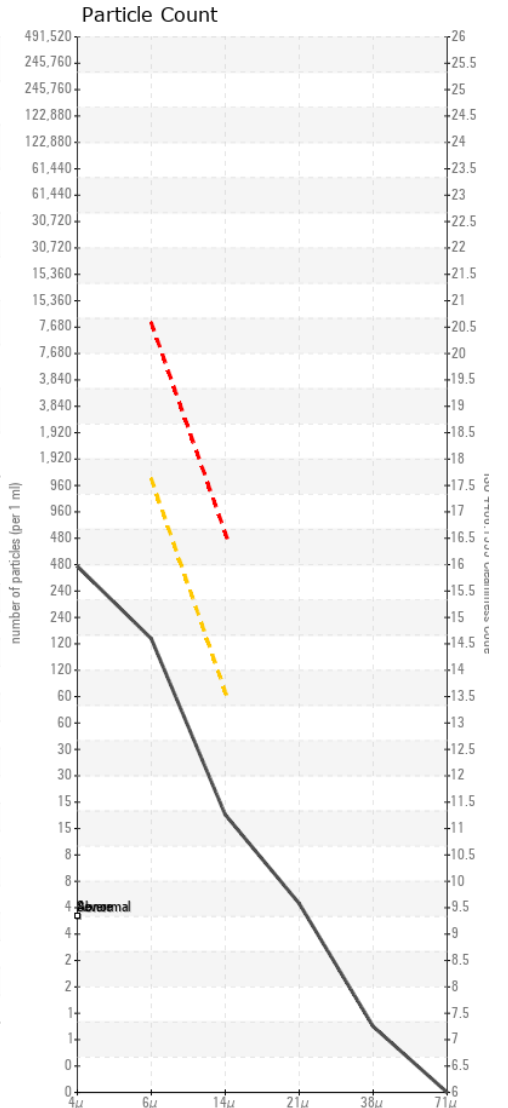
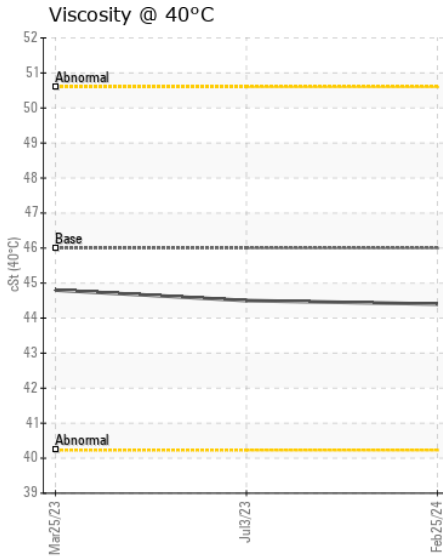
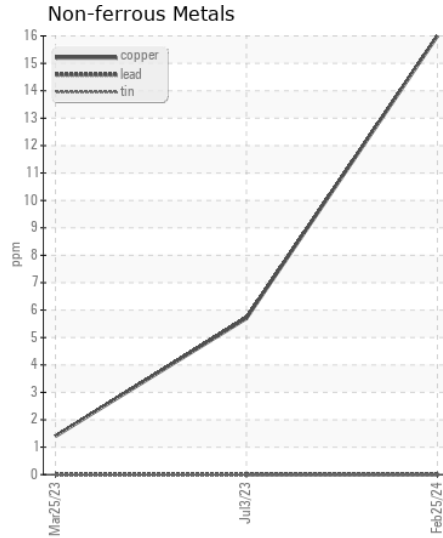
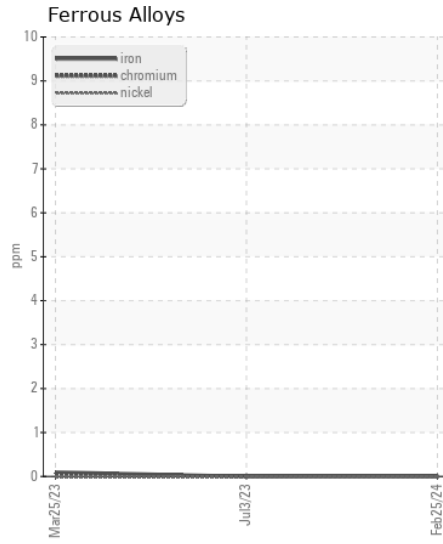
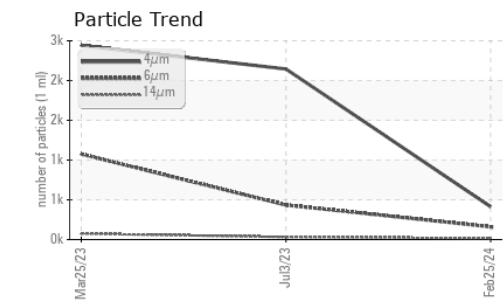
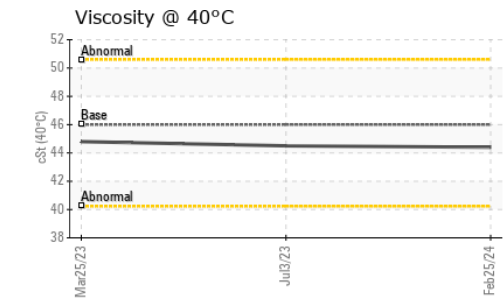
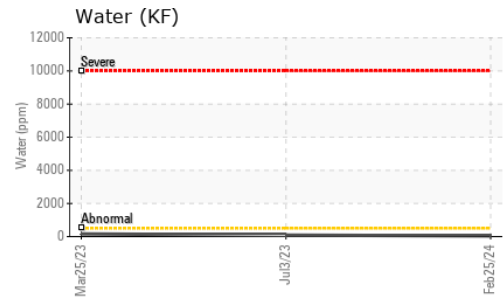
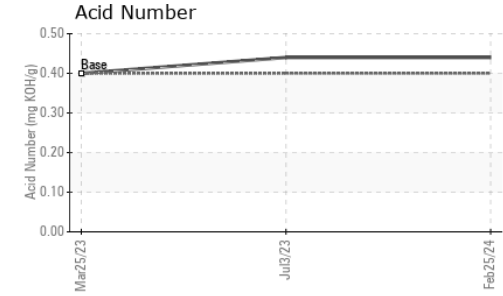
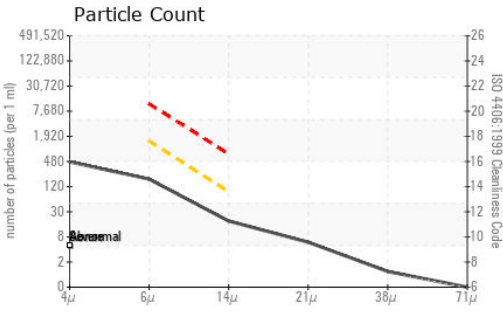
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

|                  |        |              |          |                 |          |          |
|------------------|--------|--------------|----------|-----------------|----------|----------|
| Silicon          | ppm    | ASTM D5185m  | >25      | <b>0</b>        | <1       | <1       |
| Potassium        | ppm    | ASTM D5185m  | >20      | <b>0</b>        | 0        | 5        |
| Water            | %      | ASTM D6304   | >0.05    | <b>0.004</b>    | 0.008    | 0.016    |
| ppm Water        | ppm    | ASTM D6304   | >500     | <b>40</b>       | 88.6     | 162.5    |
| Particles >4µm   |        | ASTM D7647   |          | <b>413</b>      | 2145     | 2442     |
| Particles >6µm   |        | ASTM D7647   | >1300    | <b>160</b>      | 434      | 1075     |
| Particles >14µm  |        | ASTM D7647   | >80      | <b>16</b>       | 32       | 75       |
| Particles >21µm  |        | ASTM D7647   | >20      | <b>5</b>        | 8        | 19       |
| Particles >38µm  |        | ASTM D7647   | >4       | <b>1</b>        | 0        | 0        |
| Particles >71µm  |        | ASTM D7647   | >3       | <b>0</b>        | 0        | 0        |
| Oil Cleanliness  |        | ISO 4406 (c) | >-/17/13 | <b>16/14/11</b> | 18/16/12 | 18/17/13 |
| 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      |

## FLUID CONDITION

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

|                  |          |             |     |             |      |      |
|------------------|----------|-------------|-----|-------------|------|------|
| Sodium           | ppm      | ASTM D5185m |     | <b>1</b>    | 0    | 13   |
| Boron            | ppm      | ASTM D5185m |     | <b>0</b>    | 0    | 0    |
| Barium           | ppm      | ASTM D5185m | 90  | <b>0</b>    | 0    | 44   |
| Molybdenum       | ppm      | ASTM D5185m |     | <b>0</b>    | 0    | 0    |
| Manganese        | ppm      | ASTM D5185m |     | <b>0</b>    | 0    | <1   |
| Magnesium        | ppm      | ASTM D5185m | 90  | <b>0</b>    | <1   | 45   |
| Calcium          | ppm      | ASTM D5185m | 2   | <b>0</b>    | 0    | 1    |
| Phosphorus       | ppm      | ASTM D5185m |     | <b>0</b>    | 3    | 8    |
| Zinc             | ppm      | ASTM D5185m |     | <b>0</b>    | 0    | 2    |
| Acid Number (AN) | mg KOH/g | ASTM D8045  | 0.4 | <b>0.44</b> | 0.44 | 0.40 |
| Visc @ 40°C      | cSt      | ASTM D445   | 46  | <b>44.4</b> | 44.5 | 44.8 |



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KC105600  
**Lab Number** : 06100131  
**Unique Number** : 10898361  
**Test Package** : IND 2  
**Received** : 26 Feb 2024  
**Tested** : 27 Feb 2024  
**Diagnosed** : 28 Feb 2024 - Don Baldrige

**ARCELORMITTAL SHELBY**  
 132 WEST MAIN STREET  
 SHELBY, OH  
 US 44875  
 Contact: FRANK DUKES

Certificate L2367  
 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)