

OIL ANALYSIS REPORT



Machine Id

9142160 (S/N 1119)

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

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

🔺 Wear

The aluminum level is abnormal. All other 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.

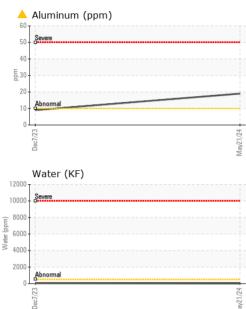
Fluid Condition

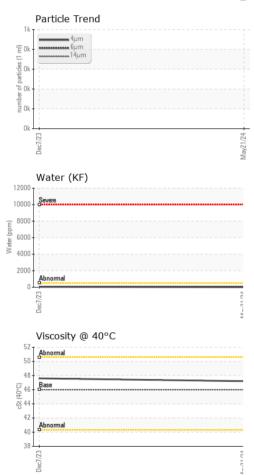
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|----------|--------------|------------|-------------|-------------|----------|
| Sample Number | | Client Info | | KC128580 | KC122038 | |
| Sample Date | | Client Info | | 21 May 2024 | 07 Dec 2023 | |
| Machine Age | hrs | Client Info | | 7269 | 3361 | |
| Oil Age | hrs | Client Info | | 7269 | 0 | |
| Oil Changed | | Client Info | | Changed | N/A | |
| Sample Status | | | | ABNORMAL | ABNORMAL | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >50 | <1 | 0 | |
| Chromium | ppm | ASTM D5185m | >10 | <1 | 0 | |
| Nickel | ppm | ASTM D5185m | >3 | 0 | 0 | |
| Titanium | ppm | ASTM D5185m | >3 | 0 | 0 | |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | |
| Aluminum | ppm | ASTM D5185m | >10 | 1 9 | 9 | |
| Lead | ppm | ASTM D5185m | >10 | 0 | 0 | |
| Copper | ppm | ASTM D5185m | >50 | <1 | 0 | |
| Tin | ppm | ASTM D5185m | >10 | <1 | 0 | |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | | 0 | 0 | |
| Barium | ppm | ASTM D5185m | 90 | 0 | 0 | |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | |
| Magnesium | ppm | ASTM D5185m | 90 | 2 | <1 | |
| Calcium | ppm | ASTM D5185m | 2 | 0 | <1 | |
| Phosphorus | ppm | ASTM D5185m | | 48 | 46 | |
| Zinc | ppm | ASTM D5185m | | 1 | 0 | |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >25 | 0 | 0 | |
| Sodium | ppm | ASTM D5185m | | 2 | 0 | |
| Potassium | ppm | ASTM D5185m | >20 | 4 | <1 | |
| Water | % | ASTM D6304 | | 0.001 | 0.004 | |
| ppm Water | ppm | ASTM D6304 | >500 | 6 | 42 | |
| FLUID CLEANLIN | ESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | | 489 | | |
| Particles >6µm | | ASTM D7647 | >1300 | 191 | | |
| Particles >14µm | | ASTM D7647 | >80 | 18 | | |
| Particles >21µm | | ASTM D7647 | >20 | 3 | | |
| Particles >38µm | | ASTM D7647 | >4 | 0 | | |
| Particles >71µm | | ASTM D7647 | >3 | 0 | | |
| Oil Cleanliness | | ISO 4406 (c) | >/17/13 | 16/15/11 | | |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.4 | 0.33 | 0.19 | |



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| | 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 | 🔺 MODER | | |
| | Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | | |
| May21/24 | Appearance | scalar | *Visual | NORML | NORML | NORML | | |
| May | Odor | scalar | *Visual | NORML | NORML | NORML | | |
| | Emulsified Water | scalar | *Visual | >0.05 | NEG | NEG | | |
| | Free Water | scalar | *Visual | | NEG | NEG | | |
| | FLUID PROPERT | IES | method | limit/base | current | history1 | history2 | |
| | Visc @ 40°C | cSt | ASTM D445 | 46 | 47.2 | 47.6 | | |
| | SAMPLE IMAGES | 3 | method | limit/base | current | history1 | history2 | |
| May21/24 | Color | | | | | | no image | |
| | Bottom | | | | | | no image | |
| | GRAPHS | | | | | | | |
| | Ferrous Alloys | | | 491,52 | Particle Count | | т26 | |
| | iron | | | | | | | |
| /24 - | E 6+ mickel | | | 122,88 | D- | | -24 | |
| May21/24 | | | | 30,72 | p_ | | -22 | |
| _ | 2 - | | | 7.00 | | | | |
| | 0 | Announce and a second | | 7,68 1 12 | | | +20 +18 +16 +14 +12 | |
| | Dec7/23 | | | May21/24. s (per 1 ml) |)- | | -18 | |
| | | | | Main Main Main Main Main Main Main Main | | N | 10 | |
| | Non-ferrous Metals | S | | +2/1/2/ May2/1/2/ 18/ 18/ 12/1/2/ | · · | | 16 | |
| | 8 - copper | | | | | | -14 | |
| | E 6 | | | 2 3 | | | -12 | |
| | ₿ 4. | | | | | | | |
| ver | 2 | | | | Berevenal | | -10 | |
| | | | | 24 | 2 | | -8 | |
| | Dec7/23 | | | May21/24 | | | | |
| | Viscosity @ 40°C | | | 2 | 0 4µ 6µ | 14µ 21µ | 38µ 71µ | |
| | 55 T | | | ~ 0.5 | Acid Number | | | |
| | 50 - Abnormal | | | HO 0.4 | Base | ***** | ***** | |
| | Base Base Abnormal | | | Ē 0.3 | | | | |
| | 성 성 Abnormal | | | - e 0.2 |)- | | | |
| | +0 | | | (0,15) (0,14) (0,14) (0,14) (0,14) (0,14) (0,14) (0,14) (0,14) (0,14) (0,14) (0,14) (0,14) (0,15) (0 | D | | | |
| | 354 | | | 0.0 [¥] | | | 2 | |
| NCI 14 | Dec7/23 | | | May21/24 | Dec7/23 | | 2 | |
| | | | | M | | | 5 6 | |
| Laboratory | : WearCheck USA - 501 | | CROWN CORK & SEAL | | | | | |
| Sample No. | : KC128580 | red : 07 Jun 2024 | | | | 3011 BIRCH DF | | |
| Lab Number | | Testec | | l 0 Jun 2024 0 Jun 2024 - Don Baldridge | | M | WEIRTON, W | |
| Unique Number rtificate L2367 Test Package | | Diagno | Dalulluye | US 2606 Contact: Service Manage | | | | |
| | | 00.11401.00 | | | | | | |
| discuss this sample report, | contact Customer Servi | ice at 1-80 | 00-237-1369 | 9. | | | | |

Contact/Location: Service Manager - CROWEI Page 2 of 2