



POWER SYSTEMS
SYSTÈMES DE PUISSANCE

OIL ANALYSIS REPORT

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

Area
SOUTHLAKE HOSPITAL - POWER PLANT [273409]
Machine Id
STAMFORD 0110442/01 SOUTHLAKE - 750KW at 600V
Component
Diesel Engine
Fluid
CASTROL 15W40 (90 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WA0020682 | WA0018124 | WA0013637 |
| Sample Date | | Client Info | | 29 Apr 2024 | 14 Jun 2022 | 27 May 2020 |
| Machine Age | hrs | Client Info | | 802 | 706 | 501 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

Metal levels are typical for a new component breaking in.

| | | | | | | |
|----------|-----|---------------|------|--------------|----|----|
| Iron | ppm | ASTM D5185(m) | >100 | 3 | 3 | 1 |
| Chromium | ppm | ASTM D5185(m) | >20 | 0 | 0 | <1 |
| Nickel | ppm | ASTM D5185(m) | >4 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185(m) | | <1 | <1 | <1 |
| Silver | ppm | ASTM D5185(m) | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >20 | <1 | <1 | <1 |
| Lead | ppm | ASTM D5185(m) | >40 | 0 | <1 | <1 |
| Copper | ppm | ASTM D5185(m) | >330 | 1 | 2 | 1 |
| Tin | ppm | ASTM D5185(m) | >15 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

CONTAMINATION

There is no indication of any contamination in the oil.

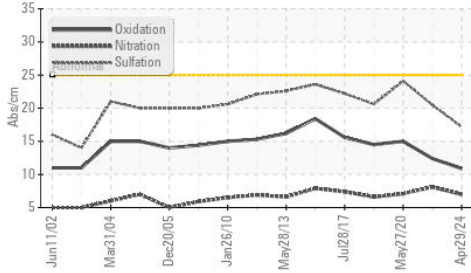
| | | | | | | |
|------------------|----------|---------------|------|----------------|------|------|
| Silicon | ppm | ASTM D5185(m) | >25 | 1 | 4 | 1 |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | 1 | <1 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | ASTM D7844* | >3 | 0 | 0 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 7.0 | 8.1 | 7.1 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 17.2 | 20.5 | 24.1 |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | NEG | NEG |

FLUID CONDITION

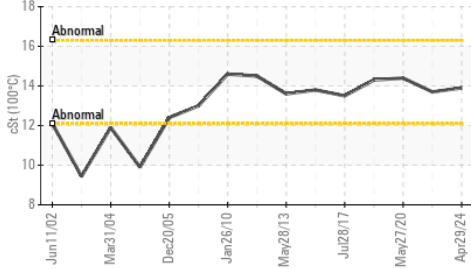
The condition of the oil is acceptable for the time in service.

| | | | | | | |
|--------------|----------|---------------|------|-------------|------|------|
| Sodium | ppm | ASTM D5185(m) | >406 | 2 | 2 | <1 |
| Boron | ppm | ASTM D5185(m) | | 9 | 10 | 13 |
| Barium | ppm | ASTM D5185(m) | | 0 | 0 | <1 |
| Molybdenum | ppm | ASTM D5185(m) | | 8 | 9 | 52 |
| Manganese | ppm | ASTM D5185(m) | | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185(m) | | 29 | 67 | 844 |
| Calcium | ppm | ASTM D5185(m) | | 2351 | 2350 | 1219 |
| Phosphorus | ppm | ASTM D5185(m) | | 914 | 948 | 1069 |
| Zinc | ppm | ASTM D5185(m) | | 1035 | 1073 | 1218 |
| Sulfur | ppm | ASTM D5185(m) | | 3053 | 3231 | 2878 |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 10.9 | 12.4 | 15.0 |
| Visc @ 100°C | cSt | ASTM D7279(m) | | 13.9 | 13.7 | 14.4 |

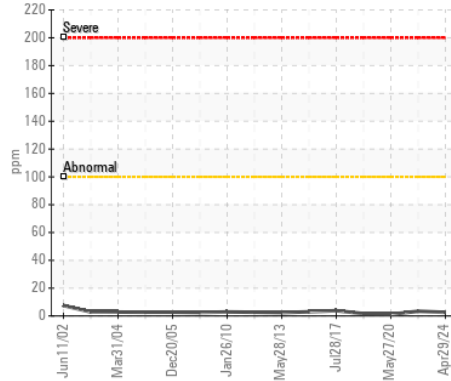
FT-IR (Direct Trend)



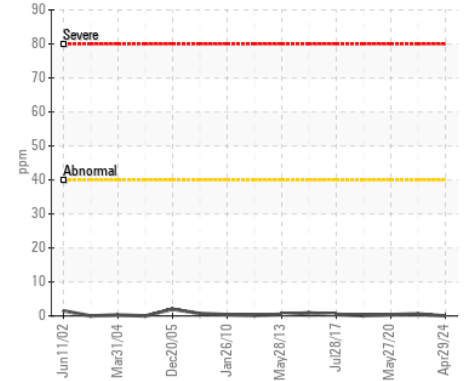
Viscosity @ 100°C



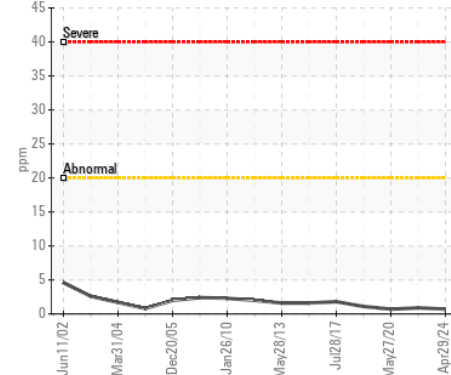
Iron (ppm)



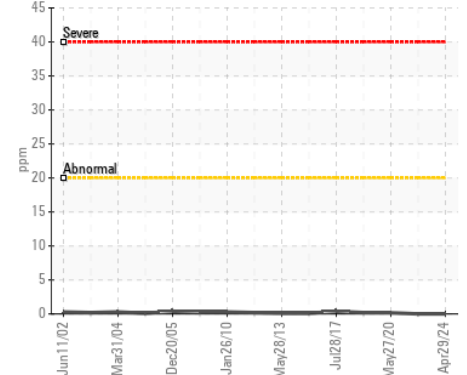
Lead (ppm)



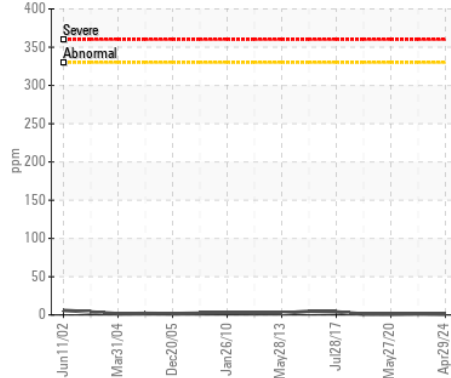
Aluminum (ppm)



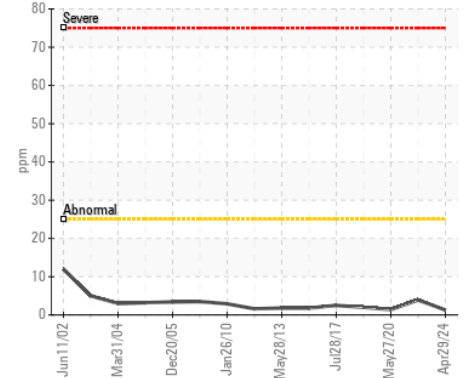
Chromium (ppm)



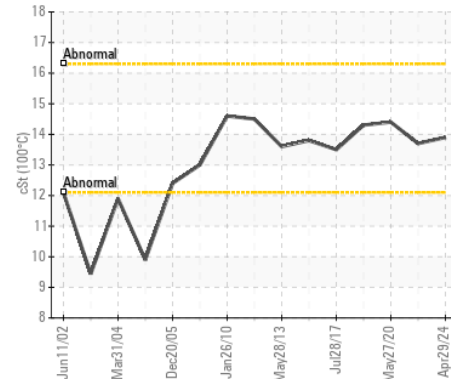
Copper (ppm)



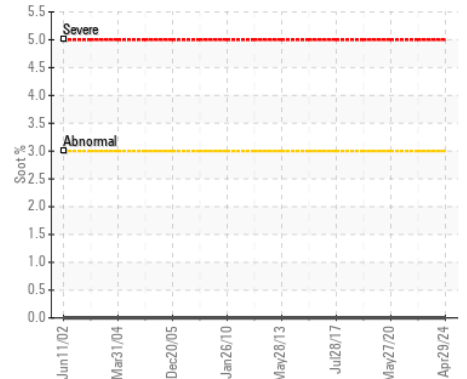
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
 Sample No. : WA0020682
 Lab Number : 02633727
 Unique Number : 5774880
 Test Package : MOB 1
 Received : 06 May 2024
 Tested : 06 May 2024
 Diagnosed : 06 May 2024 - Wes Davis

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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.