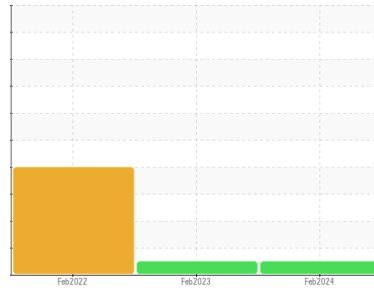




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
AIRPORT HUB - G010259337

Component
Diesel Engine
Fluid
NAPA 5W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | | WC0894423 | WC0771556 | WC0637058 |
| Sample Date | Client Info | | | 21 Feb 2024 | 06 Feb 2023 | 07 Feb 2022 |
| Machine Age | hrs | Client Info | | 1390 | 1270 | 1247 |
| Oil Age | hrs | Client Info | | 23 | 18 | 58 |
| Oil Changed | Client Info | | | Not Chngd | Not Chngd | Not Chngd |
| Sample Status | | | | NORMAL | NORMAL | ABNORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---------------|-----------|--------|------------|----------------|----------|----------|
| Fuel | WC Method | >5 | | <1.0 | <1.0 | 0.5 |
| Water | WC Method | >0.2 | | NEG | NEG | NEG |
| Glycol | WC Method | | | NEG | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >100 | 2 | 3 | 7 |
| Chromium | ppm | ASTM D5185m | >20 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | <1 | <1 | 1 |
| Lead | ppm | ASTM D5185m | >40 | <1 | 1 | 3 |
| Copper | ppm | ASTM D5185m | >330 | <1 | <1 | 16 |
| Tin | ppm | ASTM D5185m | >15 | 0 | <1 | <1 |
| Antimony | ppm | ASTM D5185m | | --- | --- | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|-------------|----------|----------|
| Boron | ppm | ASTM D5185m | | 42 | 119 | 106 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 41 | 226 | 22 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 241 | 402 | 446 |
| Calcium | ppm | ASTM D5185m | | 1746 | 1444 | 1438 |
| Phosphorus | ppm | ASTM D5185m | | 727 | 695 | 665 |
| Zinc | ppm | ASTM D5185m | | 833 | 860 | 802 |
| Sulfur | ppm | ASTM D5185m | | 2805 | 2284 | 2288 |

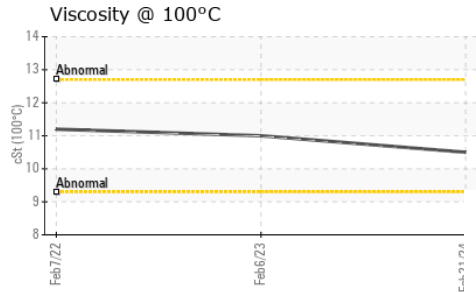
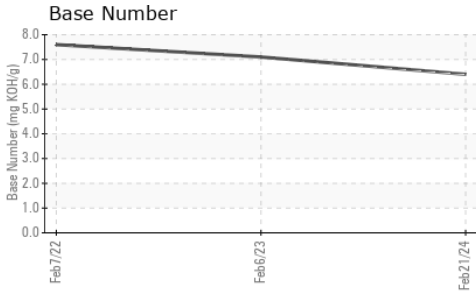
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >25 | 4 | 12 | 6 |
| Sodium | ppm | ASTM D5185m | | 3 | 10 | ▲ 125 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 1 | 1 |

| INFRA-RED | | method | limit/base | current | history1 | history2 |
|-----------|----------|-------------|------------|-------------|----------|----------|
| Soot % | % | *ASTM D7844 | >3 | 0 | 0.1 | 0 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 4.8 | 5.2 | 6.8 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 14.0 | 14.4 | 20.0 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|-------------|------------|------------|----------|----------|
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 7.1 | 9.0 | 15.3 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 6.4 | 7.1 | 7.6 |



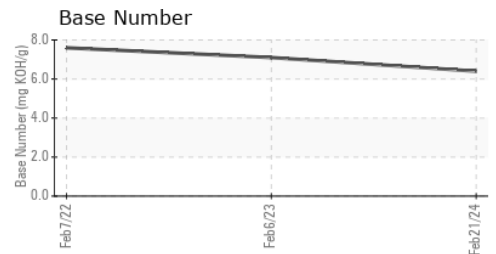
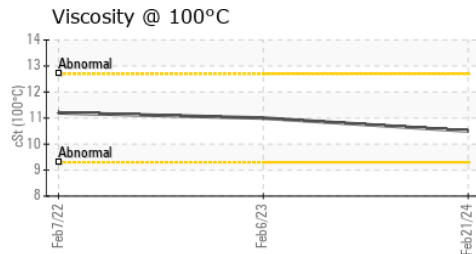
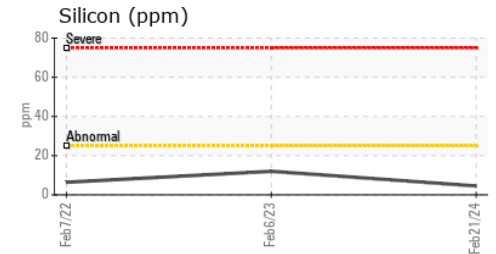
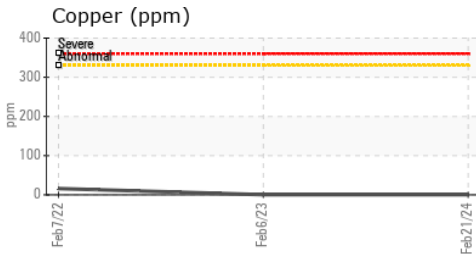
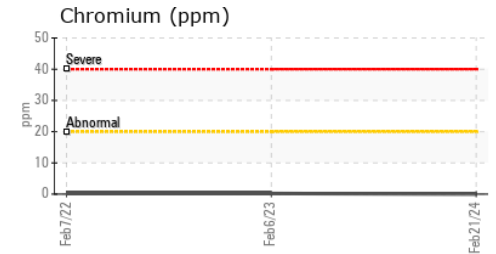
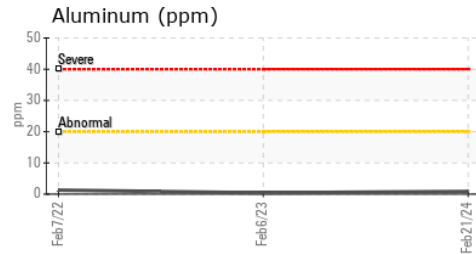
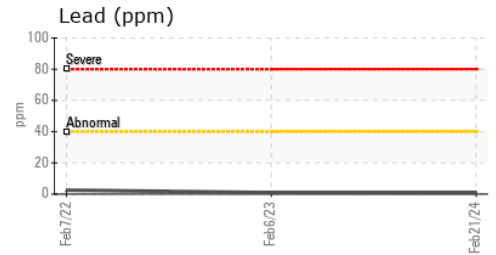
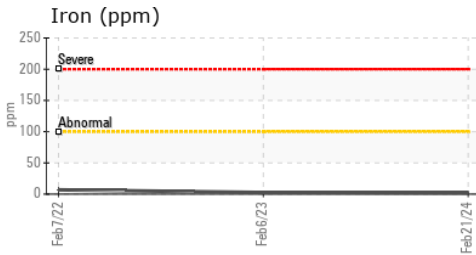
OIL ANALYSIS REPORT



| PARAMETER | 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 | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | MILKY |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | 0.2% |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 100°C | cSt | ASTM D445 | 10.5 | 11.0 | 11.2 |

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0894423 Received : 27 Feb 2024
 Lab Number : 06101326 Tested : 28 Feb 2024
 Unique Number : 10899556 Diagnosed : 28 Feb 2024 - Wes Davis
 Test Package : MOB 1 (Additional Tests: TBN)

NATIONAL POWER CORP
 4541 PRESLYN DR
 RALEIGH, NC
 US 27616
 Contact: BRANDON RICE
 brandon.rice@natpow.com

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)

T: (919)790-9714