



OIL ANALYSIS REPORT

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

Machine Id
6388
Component
Diesel Engine
Fluid
CASTROL VECTON 15W40 CK4 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WC0813342 | WC0813393 | WC0813361 |
| Sample Date | | Client Info | | 17 Jan 2024 | 16 Jan 2024 | 16 Jan 2024 |
| Machine Age | hrs | Client Info | | 7505 | 7183 | 6846 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | N/A | N/A | N/A |
| Filter Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | --- | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >100 | 4 | 5 | 4 |
| Chromium | ppm | ASTM D5185m | >20 | 0 | <1 | 0 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | <1 | <1 | <1 |
| Lead | ppm | ASTM D5185m | >40 | <1 | <1 | <1 |
| Copper | ppm | ASTM D5185m | >330 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >15 | <1 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

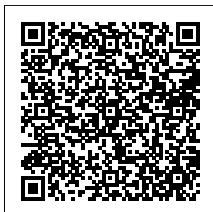
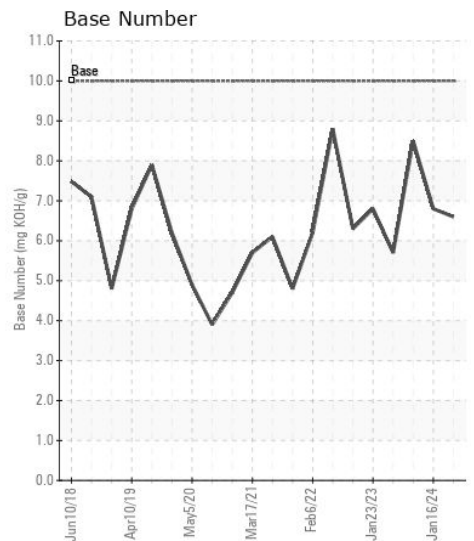
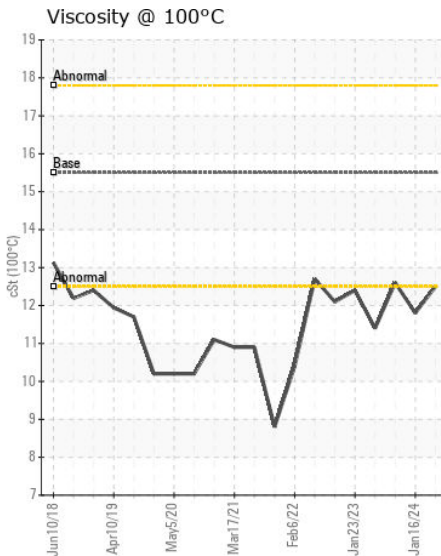
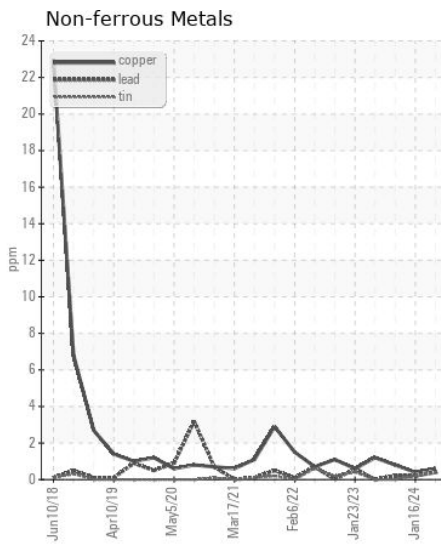
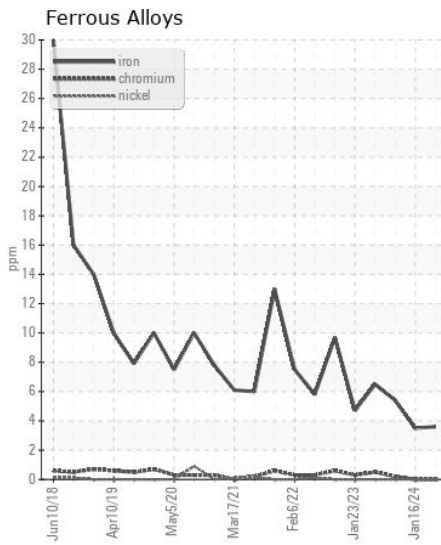
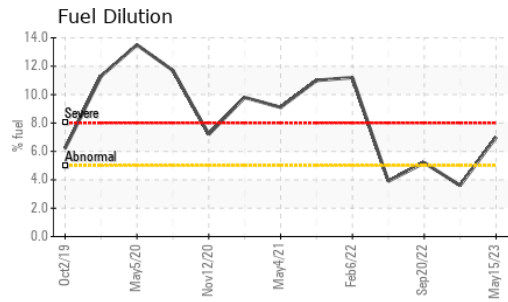
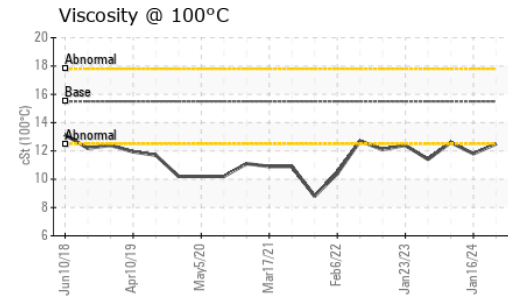
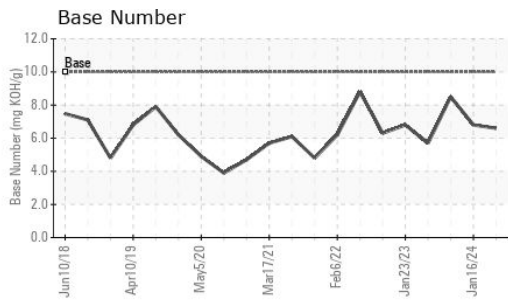
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 4 | 6 | 4 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | <1 | <1 |
| Fuel | % | ASTM D3524 | >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 | 0.2 | 0.2 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 10.6 | 10.7 | 7.7 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 20.2 | 19.8 | 18.9 |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| 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 | >0.2 | NEG | NEG | NEG |

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.

| | | | | | | |
|------------------|----------|-------------|------|-------------|--------|------|
| Sodium | ppm | ASTM D5185m | | 3 | 3 | 3 |
| Boron | ppm | ASTM D5185m | | 25 | 26 | 42 |
| Barium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 45 | 45 | 44 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 530 | 521 | 533 |
| Calcium | ppm | ASTM D5185m | | 1491 | ▲ 1410 | 1416 |
| Phosphorus | ppm | ASTM D5185m | | 718 | ▲ 709 | 766 |
| Zinc | ppm | ASTM D5185m | | 880 | 898 | 911 |
| Sulfur | ppm | ASTM D5185m | | 2215 | ▲ 2294 | 2376 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 18.7 | 17.9 | 16.0 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10 | 6.6 | 6.8 | 8.5 |
| Visc @ 100°C | cSt | ASTM D445 | 15.5 | 12.5 | 11.8 | 12.6 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0813342 **Received** : 18 Jan 2024
Lab Number : 06064689 **Diagnosed** : 21 Jan 2024
Unique Number : 10836071 **Diagnostician** : Don Baldrige
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

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)

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