CONST

WEAR CHECK

OIL ANALYSIS REPORT

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

Area
**OKLAHOMA/102/EG - SKID STEER**
Machine Id
**53.151L [OKLAHOMA^102^EG - SKID STEER]**
Component
**Diesel Engine**
Fluid
**MOBIL DELVAC 1300 SUPER15W40 (4 GAL)**

## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

## CONTAMINATION

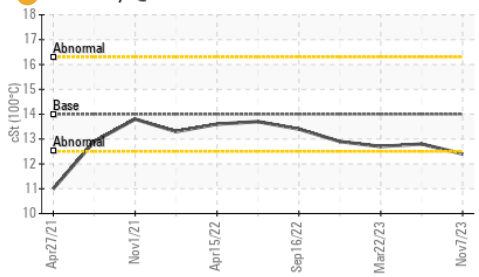
Fuel content negligible. There is no indication of any contamination in the oil.

## FLUID CONDITION

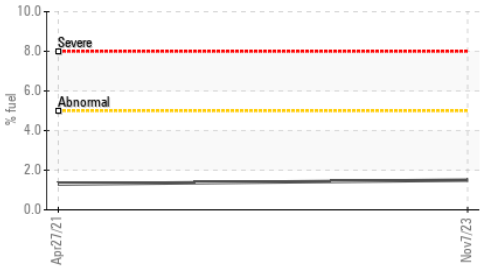
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | WC0857275 | WC0821820 | WC0800763 |
| Sample Date | | Client Info | | 07 Nov 2023 | 11 Jul 2023 | 22 Mar 2023 |
| Machine Age | hrs | Client Info | | 3522 | 2878 | 2606 |
| Oil Age | hrs | Client Info | | 644 | 272 | 250 |
| Filter Age | hrs | Client Info | | 644 | 272 | 250 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | ATTENTION | NORMAL | NORMAL |
| Iron | ppm | ASTM D5185m | >100 | 6 | 9 | 7 |
| Chromium | ppm | ASTM D5185m | >20 | 0 | <1 | <1 |
| 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 | 2 | 2 |
| Lead | ppm | ASTM D5185m | >40 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >330 | <1 | 1 | <1 |
| Tin | ppm | ASTM D5185m | >15 | 0 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >25 | 6 | 5 | 5 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Fuel | % | ASTM D3524 | >5 | 1.5 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.1 | 0.4 | 0.3 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.4 | 9.1 | 9.2 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 23.2 | 22.7 | 23.5 |
| 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 |
| Sodium | ppm | ASTM D5185m | | 2 | 3 | 2 |
| Boron | ppm | ASTM D5185m | 0 | 52 | 40 | 41 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 41 | 42 | 40 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | 1 |
| Magnesium | ppm | ASTM D5185m | 0 | 523 | 521 | 503 |
| Calcium | ppm | ASTM D5185m | | 1658 | 1806 | 1609 |
| Phosphorus | ppm | ASTM D5185m | | 791 | 730 | 682 |
| Zinc | ppm | ASTM D5185m | | 946 | 915 | 893 |
| Sulfur | ppm | ASTM D5185m | | 2585 | 2765 | 2254 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 23.1 | 21.7 | 23.1 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.4 | 9.6 | 9.0 | 9.0 |
| Visc @ 100°C | cSt | ASTM D445 | 14 | 12.4 | 12.8 | 12.7 |

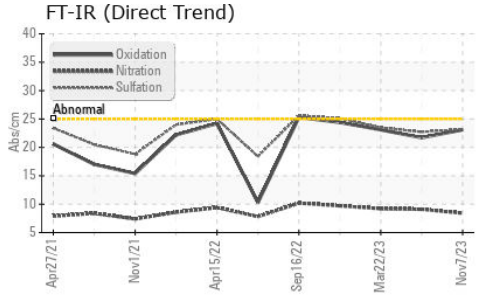
Viscosity @ 100°C



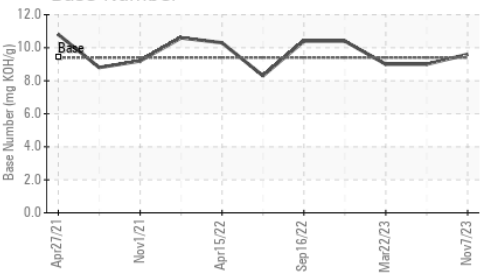

Fuel Dilution



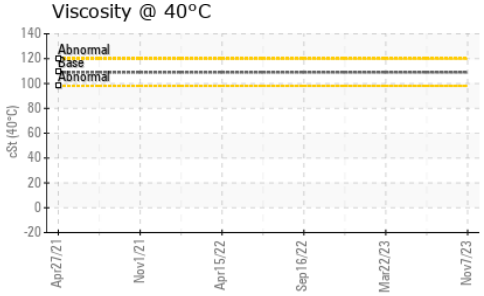

FT-IR (Direct Trend)



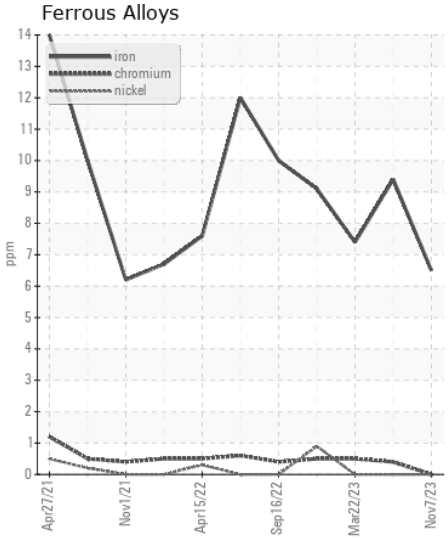

Base Number



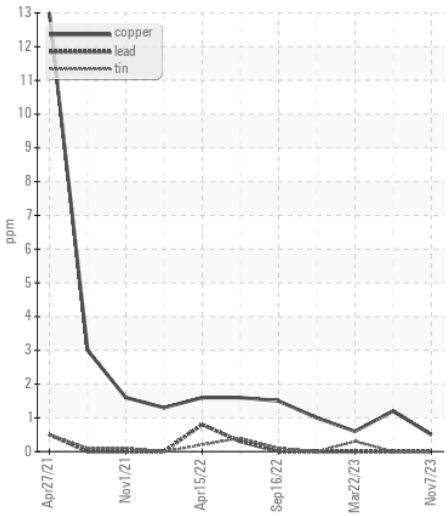

Viscosity @ 40°C



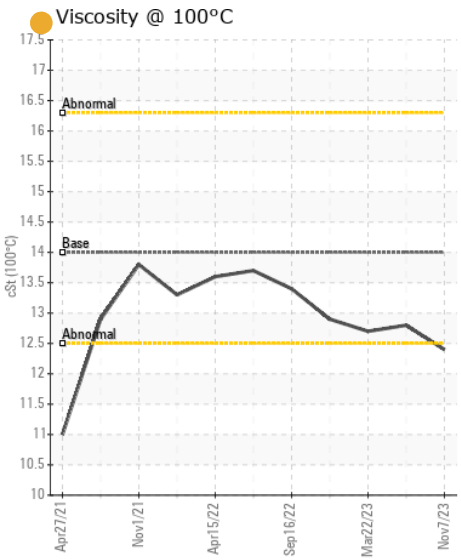

Ferrous Alloys



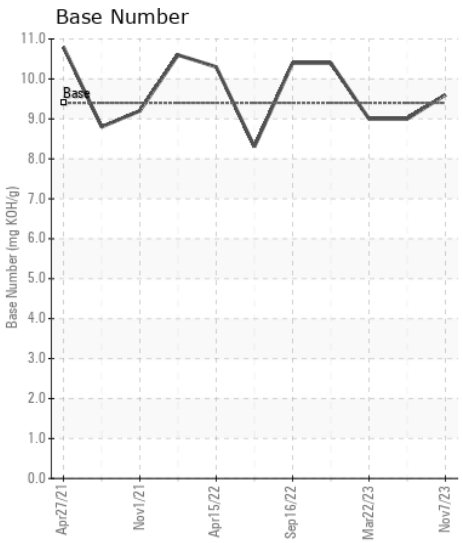

Non-ferrous Metals




Viscosity @ 100°C




Base Number




Certificate L2367

| | | | |
|---|---|---|---|
| **Laboratory** | : WearCheck USA - 501 Madison Ave., Cary, NC 27513 | | |
| **Sample No.** | : WC0857275 | **Received** | : 15 Nov 2023 |
| **Lab Number** | : 06008128 | **Tested** | : 17 Nov 2023 |
| **Unique Number** | : 10741890 | **Diagnosed** | : 17 Nov 2023 - Don Baldridge |
| **Test Package** | : CONST ( Additional Tests: FuelDilution, KV40, PercentFuel, TBN ) | | |

*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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