CONST

PetroCard™ MORE THAN JUST FUEL.

# OIL ANALYSIS REPORT

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

Area
## GM Seattle Off Raod Shop
Machine Id
## [GM Seattle Off Raod Shop] 24-837
Component
## Diesel Engine
Fluid
## SHELL 15W40 (--- GAL)

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

## CONTAMINATION

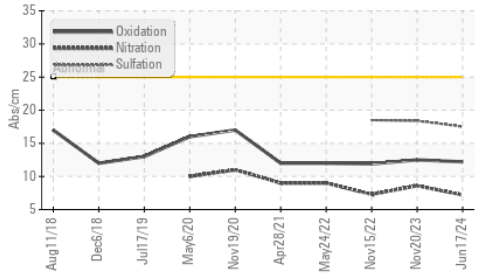
There is no indication of any contamination in the oil.

## FLUID CONDITION

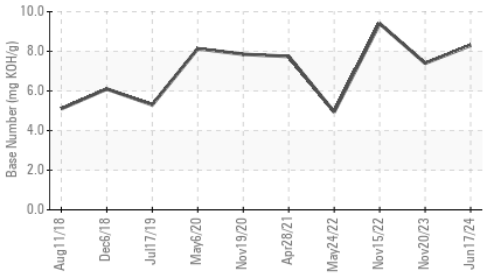
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | PE0003091 | PE0000539 | PE0001055 |
| Sample Date | | Client Info | | 17 Jun 2024 | 20 Nov 2023 | 15 Nov 2022 |
| Machine Age | hrs | Client Info | | 6472 | 6182 | 5852 |
| Oil Age | hrs | Client Info | | 290 | 553 | 223 |
| Filter Age | hrs | Client Info | | 0 | 553 | 0 |
| Oil Changed | | Client Info | | Not Changd | Changed | Not Changd |
| Filter Changed | | Client Info | | Not Changd | Changed | Not Changd |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| Iron | ppm | ASTM D5185m | >100 | 3 | 9 | 4 |
| Chromium | ppm | ASTM D5185m | >20 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | >2 | 0 | <1 | <1 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >25 | 1 | <1 | 2 |
| Lead | ppm | ASTM D5185m | >40 | 0 | 1 | <1 |
| Copper | ppm | ASTM D5185m | >330 | 1 | 2 | <1 |
| Tin | ppm | ASTM D5185m | >15 | <1 | 1 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >25 | 6 | 4 | 3 |
| Potassium | ppm | ASTM D5185m | >20 | 6 | 3 | 2 |
| 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 | 0.2 | 0.3 | 0.2 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 7.2 | 8.6 | 7.3 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 17.5 | 18.4 | 18.5 |
| 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 | >150 | 1 | 0 | 0 |
| Boron | ppm | ASTM D5185m | | 58 | 63 | 70 |
| Barium | ppm | ASTM D5185m | | 0 | <1 | 1 |
| Molybdenum | ppm | ASTM D5185m | | 34 | 21 | 22 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 588 | 314 | 314 |
| Calcium | ppm | ASTM D5185m | | 1668 | 1978 | 2075 |
| Phosphorus | ppm | ASTM D5185m | | 993 | 862 | 938 |
| Zinc | ppm | ASTM D5185m | | 1216 | 1052 | 1102 |
| Sulfur | ppm | ASTM D5185m | | 4080 | 3916 | 4460 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 12.2 | 12.5 | 11.9 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 8.3 | 7.4 | 9.4 |
| Visc @ 100°C | cSt | ASTM D445 | | 13.5 | 13.2 | 13.8 |

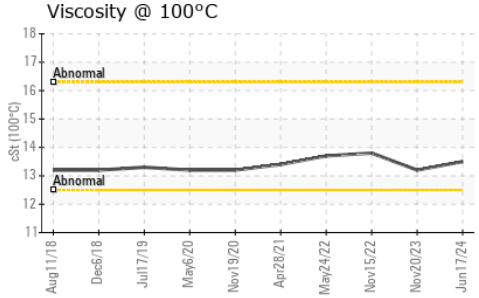
FT-IR (Direct Trend)



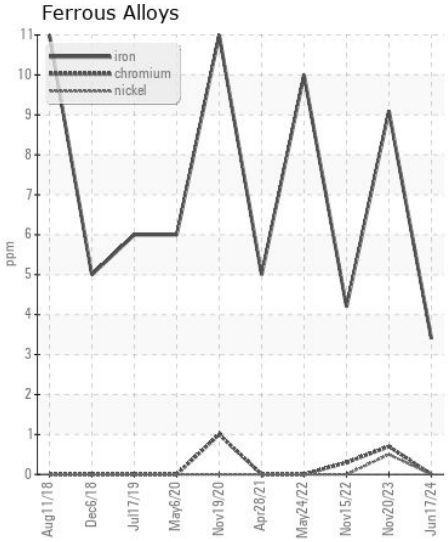

Base Number



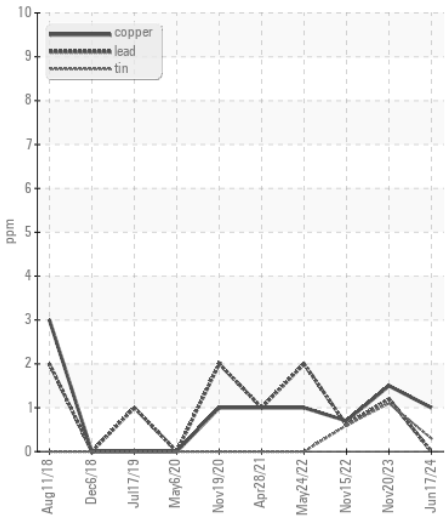

Viscosity @ 100°C



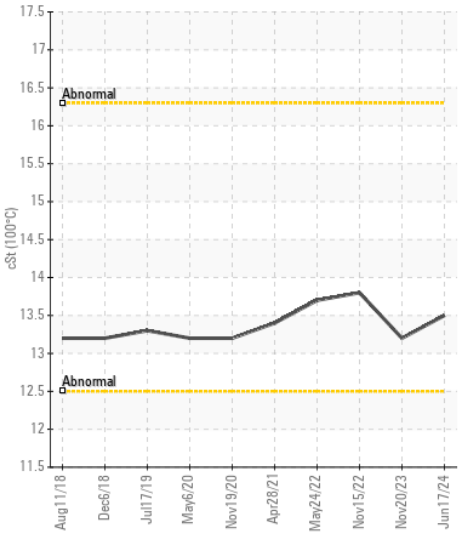

Ferrous Alloys



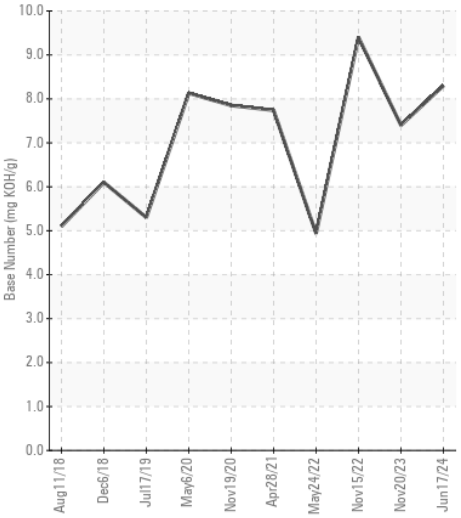

Non-ferrous Metals




Viscosity @ 100°C




Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : PE0003091
**Lab Number** : 06220571
**Unique Number** : 11098768
**Test Package** : CONST ( Additional Tests: FT-IR, ICP, KV100, SCREEN, TBN )

**Received** : 25 Jun 2024
**Tested** : 26 Jun 2024
**Diagnosed** : 27 Jun 2024 - Don Baldridge

*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)*

**Gary Merlino Construction - Off Road Shop**
9125 10TH AVE SOUTH
SEATTLE, WA
US 98108
Contact: Jesse Patterson
oilsamples@gmccinc.com
T: 1(866)292-1303
F: