OIL ANALYSIS REPORT

## Component <br> Diesel Engine

CHEVRON 15W40 (--- QTS)

## DIAGNOSIS

## Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

## Wear

Metal levels are typical for a new component breaking in.

Contamination
Light fuel dilution occurring.

## Fluid Condition

Sulfur ppm levels are abnormally high. Visc @ $100^{\circ} \mathrm{C}$ is abnormally low. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity.

| SAMPLE INFORMATION |  | method | limit/base | current | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample Number |  | Client Info |  | WC0880976 | --- | --- |
| Sample Date |  | Client Info |  | 29 Feb 2024 | --- | --- |
| Machine Age | hrs | Client Info |  | 895 | --- | --- |
| Oil Age | hrs | Client Info |  | 1500 | --- | --- |
| Oil Changed |  | Client Info |  | Changed | --- | --- |
| Sample Status |  |  |  | ABNORMAL | --- | --- |
| CONTAMINATION |  | method | limit/base | current | history1 | history2 |
| Water |  | WC Method | >0.2 | NEG | --- | --- |
| Glycol |  | WC Method |  | NEG | --- | --- |
| WEAR METALS |  | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >100 | 10 | --- | --- |
| Chromium | ppm | ASTM D5185m | >20 | <1 | --- | --- |
| Nickel | ppm | ASTM D5185m | >4 | 0 | --- | --- |
| Titanium | ppm | ASTM D5185m |  | <1 | --- | --- |
| Silver | ppm | ASTM D5185m | >3 | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m | $>20$ | 3 | --- | --- |
| Lead | ppm | ASTM D5185m | >40 | 0 | --- | --- |
| Copper | ppm | ASTM D5185m | >330 | 5 | --- | --- |
| Tin | ppm | ASTM D5185m | >15 | 0 | --- | --- |
| Vanadium | ppm | ASTM D5185m |  | <1 | --- | --- |
| Cadmium | ppm | ASTM D5185m |  | 0 | --- | --- |
| ADDITIVES |  | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m |  | 77 | --- | --- |
| Barium | ppm | ASTM D5185m |  | 1 | --- | --- |
| Molybdenum | ppm | ASTM D5185m |  | 53 | --- | --- |
| Manganese | ppm | ASTM D5185m |  | <1 | --- | --- |
| Magnesium | ppm | ASTM D5185m |  | 375 | --- | --- |
| Calcium | ppm | ASTM D5185m |  | 1784 | --- | --- |
| Phosphorus | ppm | ASTM D5185m |  | 981 | --- | --- |
| Zinc | ppm | ASTM D5185m |  | 1207 | --- | --- |
| Sulfur | ppm | ASTM D5185m |  | $\triangle 3987$ | --- | --- |


| CONTAMINANTS |  | method | limit/base | current | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Silicon | ppm | ASTM D5185m | >25 | 4 | --- | --- |
| Sodium | ppm | ASTM D5185m | >50 | 3 | --- | --- |
| Potassium | ppm | ASTM D5185m | $>20$ | <1 | --- | --- |
| Fuel | \% | ASTM D3524 | >5 | 4.9 | --- | --- |
| INFRA-RED |  | method | limit/base | current | history1 | history2 |
| Soot \% | \% | *ASTM D7844 | >3 | 0.1 | --- | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 6.8 | --- | --- |
| Sulfation | Abs.1mm | *ASTM D7415 | >30 | 22.5 | --- | --- |
| FLUID DEGRADATION |  | method | limit/base | current | history1 | history2 |
| Oxidation | Abs. 1 mm | *ASTM D7414 | >25 | 23.4 | --- | --- |
| Base Number (BN) | $\mathrm{mg} \mathrm{KOH} / \mathrm{g}$ | ASTM D2896 |  | 7.5 | --- | --- |

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Lab Number : 06122937 Tested : 22 Mar 2024

