

OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY

Area [886746] Machine Id LCL-9 ENGINE 1 Component

Front Diesel Engine

PHILLIPS 66 Fleet Supreme EC 15W40 (9 GAL)

Recommendation

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.

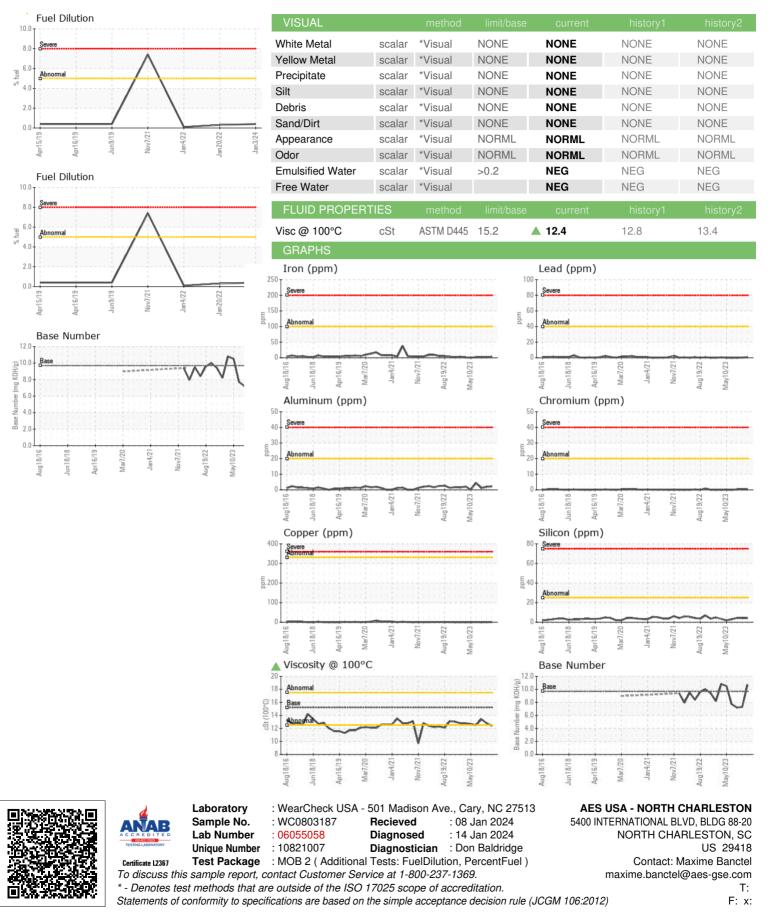




| WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 3 2 1 Chromium ppm ASTM D5185m >20 <1 <1 <1 Nickel ppm ASTM D5185m >4 <1 <1 0 Titanium ppm ASTM D5185m >4 <1 <1 <1 Silver ppm ASTM D5185m >3 <1 0 0 Aluminum ppm ASTM D5185m >20 2 1 <1 Lead ppm ASTM D5185m >4 <1 <1 0 | SAMPLE INFORM | 1ATION | method | limit/base | current | history1 | history2 |
|--|--|---|---|--|---|---|--|
| Machine Age hrs Client Info 4845 4819 4770 Oil Age hrs Client Info 0 69 110 Oil Changed Client Info N/A Not Changd Not Changd Sample Status Imit/base current History1 History2 Water WC Method >0.2 NEG NEG NEG Glycol WC Method >0.2 NEG NEG NEG WATM DENSism >100 3 2 1 Chromium ppm ASTM DENSism >41 <1 0 Nickel ppm ASTM DENSism >41 <1 0 Silver ppm ASTM DENSism >30 <1 <1 0 Copper ppm ASTM DENSism >30 <1 <1 0 Copper ppm ASTM DENSism >330 <1 <1 0 ASTM DENSism >32 <1 <1 0 0 <t< th=""><th>Sample Number</th><th></th><th>Client Info</th><th></th><th>WC0803187</th><th>WC0865377</th><th>WC0843458</th></t<> | Sample Number | | Client Info | | WC0803187 | WC0865377 | WC0843458 |
| Oil Age Inrs Client Info N/A Rot Changd Not Changd Sample Status Client Info N/A Not Changd Not Changd CONTAMINATION method imit/base current history1 history2 Water WC Method >0.2 NEG NEG NEG Glycol WC Method >0.2 NEG NEG NEG Water WC Method >0.2 NEG NEG NEG Tron ppm ASTM D5185m >100 3 2 1 Chromium ppm ASTM D5185m >20 <1 <1 0 Silver ppm ASTM D5185m >20 2 2 1 1 Lead ppm ASTM D5185m >20 2 2 1 0 Copper ppm ASTM D5185m >20 2 2 1 1 0 Copper ppm ASTM D5185m >20 2 2 | Sample Date | | Client Info | | 03 Jan 2024 | 08 Nov 2023 | 12 Sep 2023 |
| Oil Changed Sample Status Client Info N/A ATTENTION Not Changd NORMAL Not Changd NORMAL CONTAMINATION method limit/base current history1 history2 Water WC Method >0.2 NEG NEG NEG Glycol WC Method >0.2 NEG NEG NEG WEAR METALS method imit/base current history1 history2 Iron ppm ASTM D5185m >100 3 2 1 Chromium ppm ASTM D5185m >20 <1 <1 <1 Nickel ppm ASTM D5185m >20 <1 <1 <1 Silver ppm ASTM D5185m >20 2 2 1 Lead ppm ASTM D5185m >20 2 2 1 Lead ppm ASTM D5185m >33 <1 <1 <1 Vanadium ppm ASTM D5185m >33 <1 <1 <1 Vanadium ppm ASTM D5185m >15 <1 <1 <1 Vanadium ppm ASTM D5185m 0 0 0 ASTM D5185m 10 2232 < | Machine Age | hrs | Client Info | | 4845 | 4819 | 4770 |
| Sample Status Image: Market Mark | Oil Age | hrs | Client Info | | 0 | 69 | 110 |
| CONTAMINATION method limit/base current history1 history2 Water WC Method >0.2 NEG NEG NEG Glycol WC Method NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1 <1 <1 Nickel ppm ASTM D5185m >20 <1 <1 <1 Silver ppm ASTM D5185m >20 2 2 1 Lead ppm ASTM D5185m >33 <1 0 0 Copper ppm ASTM D5185m >30 <1 <1 <1 Vanadium ppm ASTM D5185m >30 <1 <1 <1 Vanadium ppm ASTM D5185m 0 0 0 0 ADDITIVES method imit/base current history1 history2 <th>Oil Changed</th> <th></th> <th>Client Info</th> <th></th> <th>N/A</th> <th>Not Changd</th> <th>Not Changd</th> | Oil Changed | | Client Info | | N/A | Not Changd | Not Changd |
| Water WC Method >0.2 NEG NEG NEG Glycol WC Method Imil/base current History1 History2 Iron ppm ASTM D5185m >100 3 2 1 Chromium ppm ASTM D5185m >20 <1 <1 <1 Nickel ppm ASTM D5185m >4 <1 <1 0 Silver ppm ASTM D5185m >3 <1 0 0 Aluminum ppm ASTM D5185m >20 2 2 1 1 Lead ppm ASTM D5185m >20 2 2 1 1 Vanadium ppm ASTM D5185m >30 <1 <1 0 Admalum ppm ASTM D5185m >15 <1 <1 <1 0 Admalum ppm ASTM D5185m <1 <1 <1 0 Admalum ppm ASTM D5185m <0 | Sample Status | | | | ATTENTION | NORMAL | NORMAL |
| Glycol WC Method NEG NEG NEG WEAR METALS method limil/base current history1 history2 Iron ppm ASTM D5185m<>100 3 2 1 Nickel ppm ASTM D5185m<>20 <1 <1 <1 Nickel ppm ASTM D5185m >4 <1 <1 0 Silver ppm ASTM D5185m >3 <1 0 0 Aluminum ppm ASTM D5185m >40 <1 <1 0 Copper ppm ASTM D5185m >30 <1 <1 0 Cadmium ppm ASTM D5185m >15 <1 <1 0 Cadmium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 61 <1 <1 0 ADDITIVES method Imil/base current history1 history2 Boron <t< th=""><th>CONTAMINATION</th><th>٧</th><th>method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></t<> | CONTAMINATION | ٧ | method | limit/base | current | history1 | history2 |
| WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 3 2 1 Chromium ppm ASTM D5185m >20 <1 <1 <1 Nickel ppm ASTM D5185m >4 <1 <1 <1 Nickel ppm ASTM D5185m >3 <1 0 0 Aluminum ppm ASTM D5185m >3 <1 <1 <1 Copper ppm ASTM D5185m >3 <1 <1 0 0 Cadmium ppm ASTM D5185m >30 <1 <1 0 0 Cadmium ppm ASTM D5185m >330 <1 <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 87 88 95 Barium ppm ASTM D5185m 41 | Water | | WC Method | >0.2 | NEG | NEG | NEG |
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| Nickel ppm ASTM D5185n >4 <1 | Iron | ppm | ASTM D5185m | >100 | 3 | 2 | 1 |
| Titanium ppm ASTM D5185m <1 | Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | <1 |
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| Tin ppm ASTM D5185m >15 <1 | Lead | ppm | ASTM D5185m | >40 | <1 | <1 | 0 |
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| Manganese ppm ASTM D5185m <1 | Barium | ppm | ASTM D5185m | | 0 | 12 | 0 |
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| Potassium ppm ASTM D5185m >20 2 2 1 Fuel % ASTM D3524 >5 0.4 <1.0 | | ppm | | >25 | - | 4 | |
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| Soot % % *ASTM D7844 >3 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 7.5 7.5 6.9 Sulfation Abs/.1mm *ASTM D7415 >30 16.7 16.7 16.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.0 12.7 12.2 | | ppm | | | 2 | 2 | |
| Nitration Abs/cm *ASTM D7624 >20 7.5 6.9 Sulfation Abs/.1mm *ASTM D7415 >30 16.7 16.7 16.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.0 12.7 12.2 | Fuel | ppm | ASTM D3524 | >5 | 2 0.4 | 2 <1.0 | <1.0 |
| Sulfation Abs/.1mm *ASTM D7415 >30 16.7 16.7 16.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.0 12.7 12.2 | Fuel INFRA-RED | ppm % | ASTM D3524 method | >5 limit/base | 2 0.4 current | 2 <1.0 history1 | <1.0 history2 |
| FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.0 12.7 12.2 | Fuel INFRA-RED Soot % | ppm % | ASTM D3524 method *ASTM D7844 | >5 limit/base >3 | 2 0.4 current 0.1 | 2 <1.0 history1 0.1 | <1.0 history2 0.1 |
| Oxidation Abs/.1mm *ASTM D7414 >25 13.0 12.7 12.2 | Fuel INFRA-RED Soot % Nitration | ppm % | ASTM D3524 method *ASTM D7844 *ASTM D7624 | >5 limit/base >3 | 2 0.4 current 0.1 7.5 | 2 <1.0 history1 0.1 7.5 | <1.0 history2 0.1 6.9 |
| | Fuel INFRA-RED Soot % Nitration | ppm % % Abs/cm | ASTM D3524 method *ASTM D7844 *ASTM D7624 | >5 limit/base >3 >20 | 2 0.4 current 0.1 7.5 | 2 <1.0 history1 0.1 7.5 | <1.0 history2 0.1 6.9 |
| Base Number (BN) mg KOH/g ASTM D2896 9.7 10.71 7.3 7.2 | Fuel INFRA-RED Soot % Nitration Sulfation | ppm % % Abs/cm Abs/.1mm | ASTM D3524 method *ASTM D7844 *ASTM D7624 *ASTM D7415 | >5 limit/base >3 >20 >30 | 2 0.4 current 0.1 7.5 16.7 | 2 <1.0 history1 0.1 7.5 16.7 | <1.0 history2 0.1 6.9 16.3 |
| | Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA | ppm % % Abs/cm Abs/.1mm TION | ASTM D3524 method *ASTM D7844 *ASTM D7624 *ASTM D7415 method | >5 limit/base >3 >20 >30 limit/base | 2 0.4 0.1 7.5 16.7 current | 2 <1.0 history1 0.1 7.5 16.7 history1 | <1.0 history2 0.1 6.9 16.3 history2 |



OIL ANALYSIS REPORT



Contact/Location: Maxime Banctel - TLDNOR