

OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY

Machine Id

Dutchess County Amenia A050739886

Diesel Engine Fluid DIESEL ENGINE OIL SAE 15W40 (3 GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

| | | Apr2016 | May2017 May201 | 9 Apr2020 May2023 | May2024 | |
|--|--|--|--|---|--|---|
| SAMPLE INFORM | ΛΑΤΙΟΝ | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | WC0921723 | WC0799946 | WC0429083 |
| Sample Date | | Client Info | | 20 May 2024 | 02 May 2023 | 26 Apr 2020 |
| Machine Age | hrs | Client Info | | 0 | 0 | 875 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | 1110 | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | ATTENTION | ABNORMAL | NORMAL |
| CONTAMINATIO | N | method | limit/base | current | history1 | history2 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >90 | 3 | 2 | 2 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| Silver | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | | 2 | 1 | 1 |
| Lead | ppm | ASTM D5185m | | 2 | 0 | 0 |
| Copper | ppm | ASTM D5185m | | - <1 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >15 | <1 | 0 | 0 |
| Antimony | ppm | ASTM D5185m | 210 | | | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | | | | | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| | nom | | | | | |
| Boron | ppm mqq | ASTM D5185m | 250 | 18 | 12 | history2 8 0 |
| Boron Barium | ppm | ASTM D5185m ASTM D5185m | 250 10 | 18 0 | 12 0 | 8 0 |
| Boron Barium Molybdenum | ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m | 250 | 18 0 92 | 12 | 8 |
| Boron Barium Molybdenum Manganese | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 250 10 | 18 0 92 0 | 12 0 46 | 8 0 58 |
| Boron Barium Molybdenum Manganese Magnesium | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 250 10 100 450 | 18 0 92 0 801 | 12 0 46 <1 | 8 0 58 <1 1039 |
| Boron Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 250 10 100 450 3000 | 18 0 92 0 801 1186 | 12 0 46 <1 639 1444 | 8 0 58 <1 1039 1198 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 250 10 100 450 | 18 0 92 0 801 1186 1103 | 12 0 46 <1 639 | 8 0 58 <1 1039 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 250 10 100 450 3000 1150 | 18 0 92 0 801 1186 | 12 0 46 <1 639 1444 1029 | 8 0 58 <1 1039 1198 1046 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 250 10 100 450 3000 1150 1350 | 18 0 92 0 801 1186 1103 1163 3507 | 12 0 46 <1 639 1444 1029 1256 | 8 0 58 <1 1039 1198 1046 1186 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 250 10 100 450 3000 1150 1350 4250 | 18 0 92 0 801 1186 1103 1163 3507 | 12 0 46 <1 639 1444 1029 1256 3880 | 8 0 58 <1 1039 1198 1046 1186 2671 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 250 10 100 450 3000 1150 1350 4250 | 18 0 92 0 801 1186 1103 1163 3507 current | 12 0 46 <1 639 1444 1029 1256 3880 history1 | 8 0 58 <1 1039 1198 1046 1186 2671 history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m | 250 10 100 450 3000 1150 1350 4250 Limit/base >25 | 18 0 92 0 801 1186 1103 1163 3507 current 5 | 12 0 46 <1 639 1444 1029 1256 3880 history1 3 | 8 0 58 <1 1039 1198 1046 1186 2671 history2 5 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m | 250 10 100 450 3000 1150 1350 4250 limit/base >25 >158 | 18 0 92 0 801 1186 1103 1163 3507 <u>current</u> 5 2 | 12 0 46 <1 639 1444 1029 1256 3880 history1 3 <1 | 8 0 58 <1 1039 1198 1046 1186 2671 history2 5 3 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m | 250 10 100 450 3000 1150 1350 4250 limit/base >25 >158 >20 | 18 0 92 0 801 1186 1103 1163 3507 current 5 2 2 2 2 2 2 | 12 0 46 <1 639 1444 1029 1256 3880 history1 3 <1 <1 | 8 0 58 <1 1039 1198 1046 1186 2671 history2 5 3 2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | 250 10 100 450 3000 1150 1350 4250 limit/base >25 >158 >20 >3.0 limit/base | 18 0 92 0 801 1186 1103 1163 3507 <i>current</i> 5 2 2 2 2 <1.0 <i>current</i> | 12 0 46 <1 639 1444 1029 1256 3880 history1 3 <1 <1 <1 <1 <1 <1 <1 ≤1.5 | 8 0 58 <1 1039 1198 1046 1186 2671 history2 5 3 2 <1.0 history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | 250 10 100 450 3000 1150 1350 4250 limit/base >25 >158 >20 >3.0 limit/base >6 | 18 0 92 0 801 1186 1103 1163 3507 current 5 2 2 2 <1.0 current 0.2 | 12 0 46 <1 639 1444 1029 1256 3880 history1 3 <1 <1 <1 <2.5 history1 0 | 8 0 58 <1 1039 1198 1046 1186 2671 history2 5 3 2 <1.0 history2 0.1 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | 250 10 100 450 3000 1150 1350 4250 limit/base >25 >158 >20 >3.0 limit/base >6 | 18 0 92 0 801 1186 1103 1163 3507 <i>current</i> 5 2 2 2 2 <1.0 <i>current</i> | 12 0 46 <1 639 1444 1029 1256 3880 history1 3 <1 <1 <1 <1 <1 <1 <1 ≤1.5 | 8 0 58 <1 1039 1198 1046 1186 2671 history2 5 3 2 <1.0 history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | 250 10 100 450 3000 1150 1350 4250 limit/base >25 >158 >20 >3.0 limit/base >6 >20 | 18 0 92 0 801 1186 1103 1163 3507 current 5 2 2 2 <1.0 current 0.2 8.5 21.3 | 12 0 46 <1 639 1444 1029 1256 3880 history1 3 <1 <1 <1 ≥.5 history1 0 5.2 | 8 0 58 <1 1039 1198 1046 1186 2671 history2 5 3 2 <1.0 history2 0.1 5.6 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | 250 10 100 450 3000 1150 1350 4250 limit/base >25 >158 >20 >3.0 limit/base >6 >20 >30 | 18 0 92 0 801 1186 1103 1163 3507 Current 5 2 2 2 <1.0 0.2 8.5 21.3 Current | 12 0 46 <1 639 1444 1029 1256 3880 history1 3 <1 <1 <1 <2.5 history1 0 5.2 14.9 | 8 0 58 <1 1039 1198 1046 1186 2671 history2 5 3 2 <1.0 history2 0.1 5.6 17.8 history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D71844 | 250 10 100 450 3000 1150 1350 4250 iimit/base >25 >158 >20 >3.0 iimit/base >6 >20 >30 iimit/base | 18 0 92 0 801 1186 1103 1163 3507 current 5 2 2 2 <1.0 current 0.2 8.5 21.3 | 12 0 46 <1 639 1444 1029 1256 3880 history1 3 <1 <1 <1 2.5 history1 0 5.2 14.9 history1 | 8 0 58 <1 1039 1198 1046 1186 2671 history2 5 3 2 <1.0 history2 0.1 5.6 17.8 |

Submitted By: CHRIS HALVORSEN

Page 1 of 2



3

30

Abs/

10

6.0

5.0 _____4.0

²3.0

2.0

1.0

0.0

14

2.0

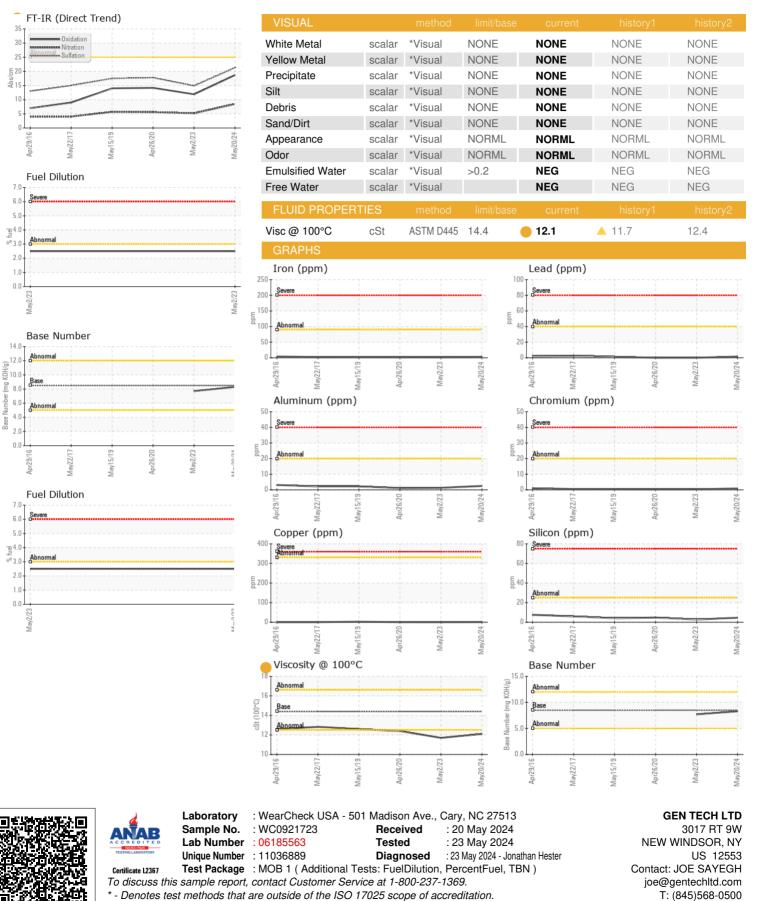
6.0

5.0

<u>a</u> 4.0 8231

2.0

OIL ANALYSIS REPORT



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Report Id: GENNEW [WUSCAR] 06185563 (Generated: 05/23/2024 07:43:27) Rev: 1

Submitted By: CHRIS HALVORSEN

Page 2 of 2

F: (845)568-3073