

PROBLEM SUMMARY

Sample Rating Trend

DIRT

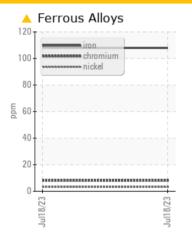


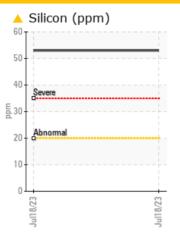
Machine Id **95042** Component

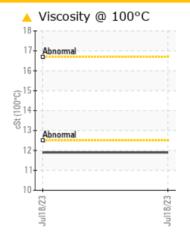
Diesel Engine

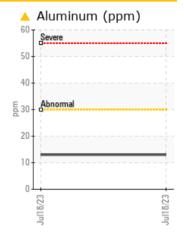
AG 15W40 (10 GAL)

COMPONENT CONDITION SUMMARY









RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor.

| PROBLEMATIC T | EST RE | SULTS | | | |
|---------------|--------|-------------|-----|-------------|------|
| Sample Status | | | | ABNORMAL | |
| Iron | ppm | ASTM D5185m | >80 | <u> </u> | |
| Chromium | ppm | ASTM D5185m | >5 | <u> 8</u> | |
| Aluminum | ppm | ASTM D5185m | >30 | <u> </u> | |
| Silicon | ppm | ASTM D5185m | >20 | △ 53 | |
| Visc @ 100°C | cSt | ASTM D445 | | 11.9 | |

Customer Id: SBTYOR Sample No.: SBP0002517 Lab Number: 05905091 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:

Don Baldridge +1 don.b505@comcast.net

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

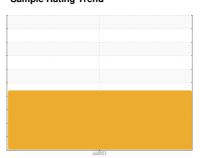
| RECOMMENDED ACTIONS | | | | | | |
|---------------------|--------|------|---------|--|--|--|
| Action | Status | Date | Done By | Description | | |
| Check Dirt Access | | | ? | We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. | | |
| | | | | | | |

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend







95042 Component

Diesel Engine

AG 15W40 (10 GAL)

DIAGNOSIS

Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor.

Wear

Cylinder, crank, or cam shaft wear is indicated.

Contamination

Fuel content negligible. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

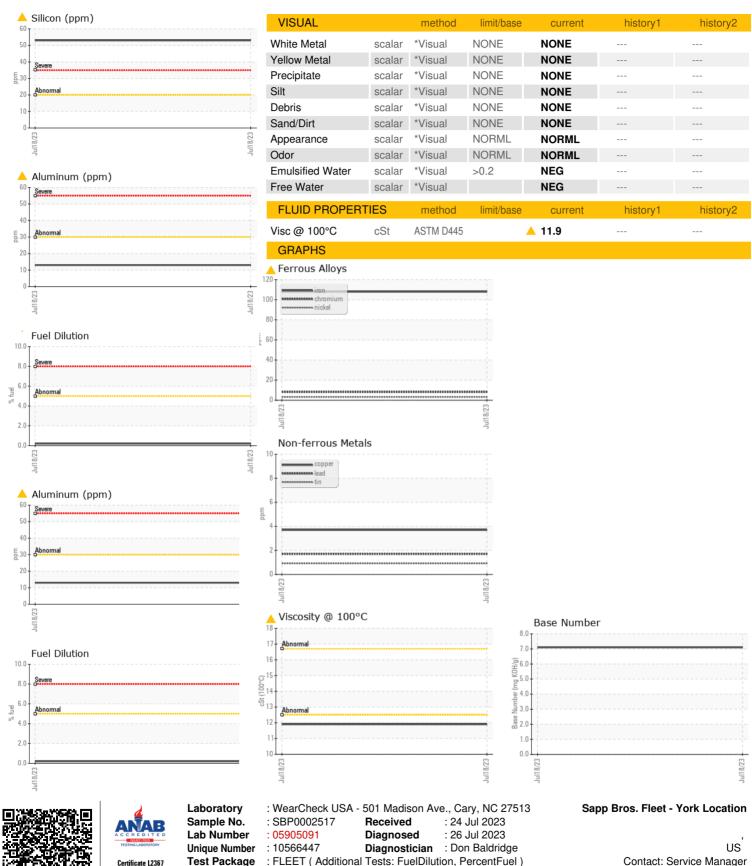
Fluid Condition

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

| | | L | | Jul2023 | | |
|--|--|--|---|---|-------------------------------------|------------------------------|
| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | SBP0002517 | | |
| Sample Date | | Client Info | | 18 Jul 2023 | | |
| Machine Age | mls | Client Info | | 188650 | | |
| Oil Age | mls | Client Info | | 12000 | | |
| Oil Changed | | Client Info | | N/A | | |
| Sample Status | | | | ABNORMAL | | |
| CONTAMINATIO | ٧ | method | limit/base | current | history1 | history2 |
| Glycol | | WC Method | | NEG | | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >80 | <u> 108</u> | | |
| Chromium | ppm | ASTM D5185m | >5 | <u>^</u> 8 | | |
| Nickel | ppm | ASTM D5185m | >2 | 3 | | |
| Titanium | ppm | ASTM D5185m | | <1 | | |
| Silver | ppm | ASTM D5185m | >3 | 0 | | |
| Aluminum | ppm | ASTM D5185m | | ∆ 13 | | |
| Lead | ppm | ASTM D5185m | >30 | 2 | | |
| | | ASTM D5185m | | 4 | | |
| Copper | ppm | ASTM D5185m | | <1 | | |
| Tin | ppm | | >5 | | | |
| Vanadium | ppm | ASTM D5185m | | <1 | | |
| Cadmium | ppm | ASTM D5185m | | 0 | | |
| | | and the second second | | | | 1.1.4 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| ADDITIVES Boron | ppm | method ASTM D5185m | limit/base | current 0 | history1 | history2 |
| | ppm ppm | | limit/base | | | |
| Boron | | ASTM D5185m | limit/base | 0 | | |
| Boron Barium | ppm | ASTM D5185m ASTM D5185m | limit/base | 0 | | |
| Boron Barium Molybdenum | ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m | limit/base | 0 0 72 | | |
| Boron Barium Molybdenum Manganese | ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | limit/base | 0 0 72 2 | | |
| Boron Barium Molybdenum Manganese Magnesium | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | limit/base | 0 0 72 2 1167 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | limit/base | 0 0 72 2 1167 1311 | | |
| 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 | limit/base | 0 0 72 2 1167 1311 1196 | | |
| 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 ASTM D5185m | limit/base | 0 0 72 2 1167 1311 1196 1472 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m | | 0 0 72 2 1167 1311 1196 1472 3710 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m | limit/base | 0 0 72 2 1167 1311 1196 1472 3710 | history1 | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m method ASTM D5185m | limit/base | 0 0 72 2 1167 1311 1196 1472 3710 current ▲ 53 | history1 | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m | limit/base >20 >20 | 0 0 72 2 1167 1311 1196 1472 3710 current ▲ 53 | history1 | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m | limit/base >20 >20 | 0 0 72 2 1167 1311 1196 1472 3710 current ▲ 53 17 | history1 | history2 |
| 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 ppm | ASTM D5185m | limit/base >20 >20 >5 limit/base | 0 0 72 2 1167 1311 1196 1472 3710 current ▲ 53 17 10 0.2 | history1 | 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 D7844 | limit/base >20 >20 >5 limit/base >3 | 0 0 72 2 1167 1311 1196 1472 3710 | history1 history1 | history2 history2 |
| 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 ppm | ASTM D5185m | limit/base >20 >20 >5 limit/base >3 >20 | 0 0 72 2 1167 1311 1196 1472 3710 current ▲ 53 17 10 0.2 | history1 history1 | history2 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 D7844 *ASTM D7844 | limit/base >20 >20 >5 limit/base >3 >20 | 0 0 72 2 1167 1311 1196 1472 3710 current ▲ 53 17 10 0.2 current 0.8 10.4 | history1 history1 | history2 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 D7844 *ASTM D7844 *ASTM D7624 *ASTM D7844 | limit/base >20 >20 >5 limit/base >3 >20 >3 limit/base | 0 0 72 2 1167 1311 1196 1472 3710 current ▲ 53 17 10 0.2 current 0.8 10.4 22.9 current | history1 history1 | history2 history2 |
| 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 D7844 *ASTM D7624 *ASTM D7624 | limit/base >20 >20 >5 limit/base >3 >20 >3 limit/base | 0 0 72 2 1167 1311 1196 1472 3710 | history1 history1 history1 history1 | history2 history2 history2 |



OIL ANALYSIS REPORT



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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