

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

| PROBLEMATIC T | EST RE | SULTS | | |
|---------------|--------|-----------|-----------|------|
| Sample Status | | | ATTENTION | |
| Visc @ 100°C | cSt | ASTM D445 | <u> </u> | |

Customer Id: SBTYOR Sample No.: SBP0004621 Lab Number: 06013139 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 jhester@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend





93081 Component Diesel Engine Fluid

Machine Id

AG 10W30 (10 GAL)

DIAGNOSIS

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

| | | | | Nov2023 | | |
|--|--|--|---|---|--|---|
| SAMPLE INFORM | IATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | SBP0004621 | | |
| Sample Date | | Client Info | | 10 Nov 2023 | | |
| Machine Age | mls | Client Info | | 12000 | | |
| Oil Age | mls | Client Info | | 12000 | | |
| Oil Changed | | Client Info | | N/A | | |
| Sample Status | | | | ATTENTION | | |
| CONTAMINATIO | N | method | limit/base | current | history1 | history2 |
| Fuel | | WC Method | >5 | <1.0 | | |
| Water | | WC Method | >0.2 | NEG | | |
| Glycol | | WC Method | | NEG | | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >80 | 53 | | |
| Chromium | ppm | ASTM D5185m | >5 | 4 | | |
| Nickel | ppm | ASTM D5185m | >2 | 1 | | |
| Titanium | ppm | ASTM D5185m | | <1 | | |
| Silver | ppm | ASTM D5185m | >3 | 0 | | |
| Aluminum | ppm | ASTM D5185m | >30 | 10 | | |
| Lead | ppm | ASTM D5185m | >30 | <1 | | |
| Copper | ppm | ASTM D5185m | >150 | 5 | | |
| Tin | ppm | ASTM D5185m | >5 | 2 | | |
| Vanadium | ppm | ASTM D5185m | | 0 | | |
| | | | | | | |
| Cadmium | ppm | ASTM D5185m | | <1 | | |
| Cadmium ADDITIVES | ppm | ASTM D5185m method | limit/base | <1 current | history1 | history2 |
| | ppm ppm | | limit/base | | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| ADDITIVES Boron | ppm | method ASTM D5185m | limit/base | current 0 | history1 | history2 |
| ADDITIVES Boron Barium | ppm ppm | method ASTM D5185m ASTM D5185m | limit/base | current 0 10 | history1 | history2 |
| ADDITIVES Boron Barium Molybdenum | ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m | limit/base | current 0 10 66 | history1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese | ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | limit/base | 0 10 66 <1 | history1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium | ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | limit/base | Current 0 10 66 <1 989 | history1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm ppm | methodASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185m | limit/base | current 0 10 66 <1 989 1136 | history1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus | ppm ppm ppm ppm ppm ppm | Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | limit/base | current 0 10 66 <1 989 1136 1104 | history1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | limit/base | current 0 10 66 <1 989 1136 1104 1266 | history1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | | current 0 10 66 <1 989 1136 1104 1266 3131 | history1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS | ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | limit/base | current 0 10 66 <1 989 1136 1104 1266 3131 current | history1 history1 | history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon | ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | limit/base | current 0 10 66 <1 989 1136 1104 1266 3131 current 23 | history1 history1 | history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium | ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | limit/base >20 | current 0 10 66 <1 989 1136 1104 1266 3131 current 23 0 | history1 history1 | history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | limit/base >20 >20 | current 0 10 66 <1 989 1136 1104 1266 3131 current 23 0 8 | history1 history1 | history2 history2 - |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED | ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | limit/base >20 >20 limit/base | Current 0 10 66 <1 989 1136 1104 1266 3131 current 23 0 8 current | history1 history1 history1 history1 history1 | history2 history2 history2 history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % | ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | limit/base >20 >20 limit/base >3 | Current 0 10 66 <1 989 1136 1104 1266 3131 current 23 0 8 current 0.5 | history1 history1 history1 history1 | history2 history2 history2 history2 history2 history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | limit/base >20 >20 limit/base >3 >20 | current 0 10 66 <1 989 1136 1104 1266 3131 current 23 0 8 current 0.5 10.8 | history1 history1 history1 history1 | history2 history2 history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m | limit/base >20 >20 limit/base >3 >20 >3 >20 | Current 0 10 66 <1 989 1136 1104 1266 3131 current 23 0 8 current 0.5 10.8 22.4 | history1 history1 history1 history1 history1 | history2 history2 history2 history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D718544 *ASTM D7624 *ASTM D7415 method | limit/base >20 >20 limit/base >3 >20 >30 >30 limit/base | Current 0 10 66 <1 989 1136 1104 1266 3131 current 23 0 8 current 0.5 10.8 22.4 | history1 history1 history1 history1 history1 history1 history1 | history2 history2 history2 history2 history2 history2 history2 history2 |



OIL ANALYSIS REPORT

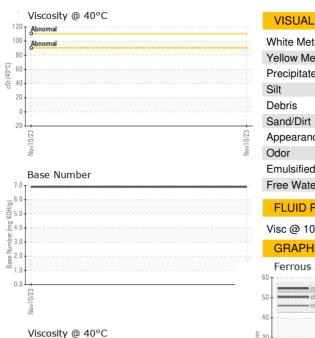
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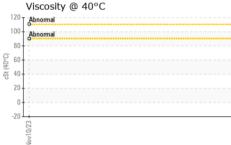
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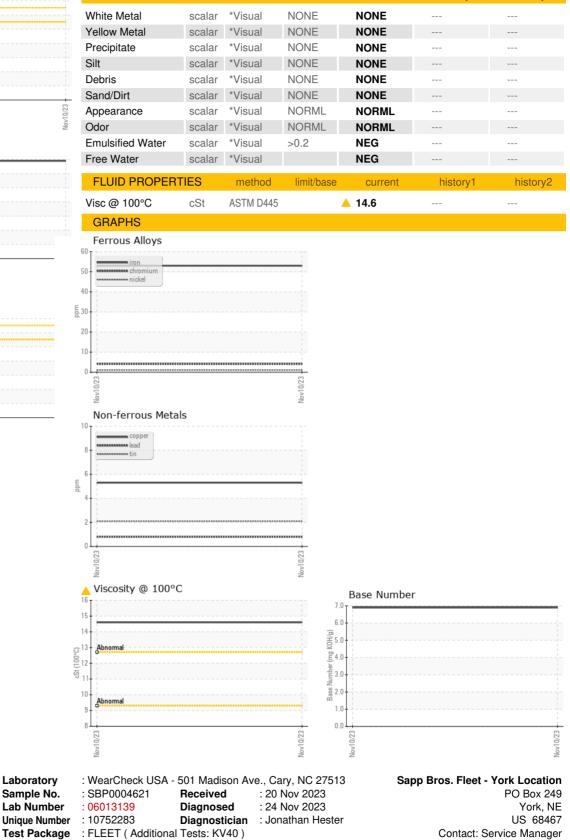
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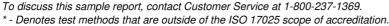
history1

history2









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

Certificate L2367

Contact/Location: Service Manager - SBTYOR Page 4 of 4