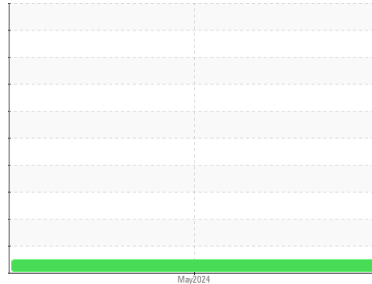


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
024 - M-TRANS AST 20
 Component
New (Unused) Oil
 Fluid
{not provided} (--- GAL)

DIAGNOSIS

Recommendation

This is a baseline read-out on the submitted sample.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|----------|----------|
| Sample Number | Client Info | | | PCA0115855 | --- | --- |
| Sample Date | Client Info | | | 20 May 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 0 | --- | --- |
| Oil Age | hrs | Client Info | | 0 | --- | --- |
| Oil Changed | Client Info | | | N/A | --- | --- |
| Sample Status | | | | NORMAL | --- | --- |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water | WC Method | | | NEG | --- | --- |

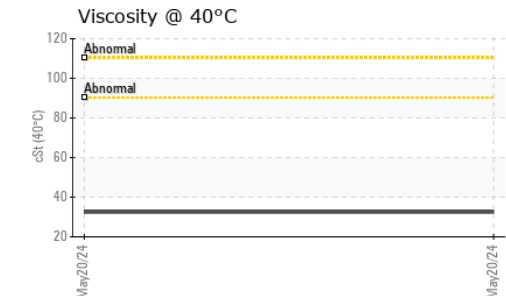
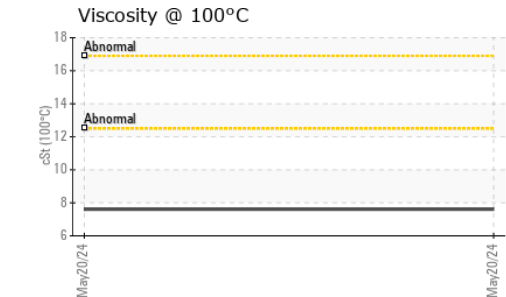
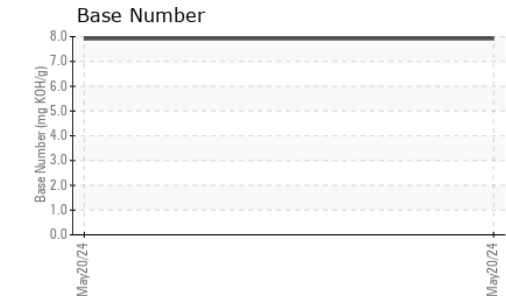
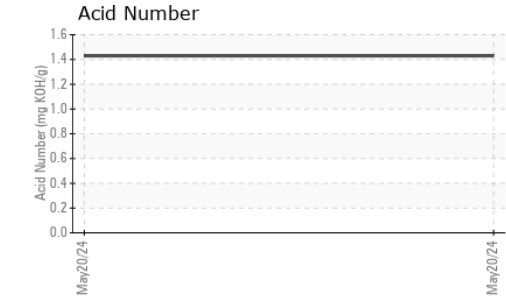
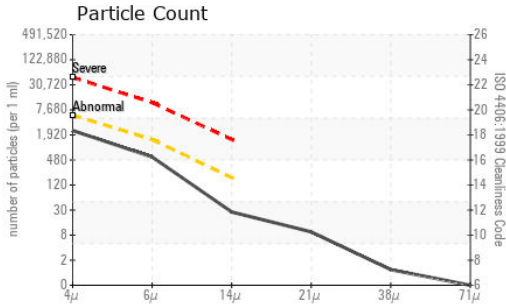
| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | | 3 | --- | --- |
| Chromium | ppm | ASTM D5185m | | <1 | --- | --- |
| Nickel | ppm | ASTM D5185m | | <1 | --- | --- |
| Titanium | ppm | ASTM D5185m | | <1 | --- | --- |
| Silver | ppm | ASTM D5185m | | <1 | --- | --- |
| Aluminum | ppm | ASTM D5185m | | 2 | --- | --- |
| Lead | ppm | ASTM D5185m | | <1 | --- | --- |
| Copper | ppm | ASTM D5185m | | <1 | --- | --- |
| Tin | ppm | ASTM D5185m | | <1 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | <1 | --- | --- |
| Cadmium | ppm | ASTM D5185m | | <1 | --- | --- |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | | 0 | --- | --- |
| Barium | ppm | ASTM D5185m | | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | <1 | --- | --- |
| Manganese | ppm | ASTM D5185m | | <1 | --- | --- |
| Magnesium | ppm | ASTM D5185m | | 11 | --- | --- |
| Calcium | ppm | ASTM D5185m | | 2981 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | 1061 | --- | --- |
| Zinc | ppm | ASTM D5185m | | 1203 | --- | --- |
| Sulfur | ppm | ASTM D5185m | | 4981 | --- | --- |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|----------|----------|----------|
| Silicon | ppm | ASTM D5185m | | 6 | --- | --- |
| Sodium | ppm | ASTM D5185m | | 0 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 2 | --- | --- |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|-------------------|--|--------------|------------|-----------------|----------|----------|
| Particles >4µm | | ASTM D7647 | >5000 | 2143 | --- | --- |
| Particles >6µm | | ASTM D7647 | >1300 | 497 | --- | --- |
| Particles >14µm | | ASTM D7647 | >160 | 24 | --- | --- |
| Particles >21µm | | ASTM D7647 | >40 | 8 | --- | --- |
| Particles >38µm | | ASTM D7647 | >10 | 1 | --- | --- |
| Particles >71µm | | ASTM D7647 | >3 | 0 | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | 18/16/12 | --- | --- |



OIL ANALYSIS REPORT



| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 1.43 | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 7.92 | --- | --- |

| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|---------|------------|--------------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Precipitate | scalar | *Visual | NONE | NONE | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | | NEG | --- | --- |
| Free Water | scalar | *Visual | | NEG | --- | --- |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|----------------------|-------|------------|------------|--------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | | 32.49 | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | | 7.61 | --- | --- |
| Viscosity Index (VI) | Scale | ASTM D2270 | | 215 | --- | --- |

| SAMPLE IMAGES | | method | limit/base | current | history1 | history2 |
|---------------|---|--------|------------|---------|----------|----------|
| Color |  | | | | no image | no image |
| Bottom |  | | | | no image | no image |



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0115855 **Received** : 21 May 2024
Lab Number : **06186605** **Tested** : 31 May 2024
Unique Number : 11043357 **Diagnosed** : 31 May 2024 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, TBN, VI)

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 F: (701)663-9445

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)