



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

| | |
|-----------------|--------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |

Machine Id
WESTERN STAR 5038

Component
Transmission

Fluid
TRC TEXTRANS MULTI-VEHICLE SYN ATF (28 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|-------------|----------|----------|
| Sample Number | | Client Info | | TR06210319 | --- | --- |
| Sample Date | | Client Info | | 08 Jun 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 1128 | --- | --- |
| Oil Age | hrs | Client Info | | 0 | --- | --- |
| Filter Age | hrs | Client Info | | 0 | --- | --- |
| Oil Changed | | Client Info | | Not Changd | --- | --- |
| Filter Changed | | Client Info | | Not Changd | --- | --- |
| Sample Status | | | | NORMAL | --- | --- |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|------|-----|-----|
| Iron | ppm | ASTM D5185m | >250 | 72 | --- | --- |
| Chromium | ppm | ASTM D5185m | >2 | 0 | --- | --- |
| Nickel | ppm | ASTM D5185m | >2 | 0 | --- | --- |
| Titanium | ppm | ASTM D5185m | >2 | 0 | --- | --- |
| Silver | ppm | ASTM D5185m | | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >55 | 16 | --- | --- |
| Lead | ppm | ASTM D5185m | >65 | 3 | --- | --- |
| Copper | ppm | ASTM D5185m | >230 | 12 | --- | --- |
| Tin | ppm | ASTM D5185m | >6 | 1 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |

CONTAMINATION

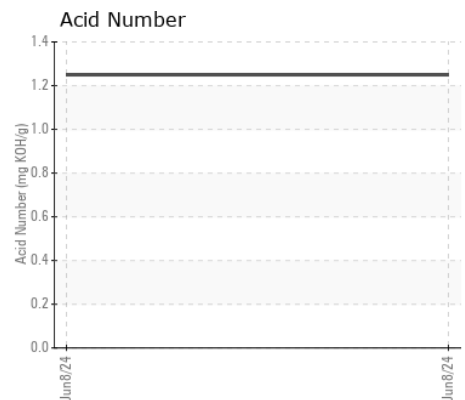
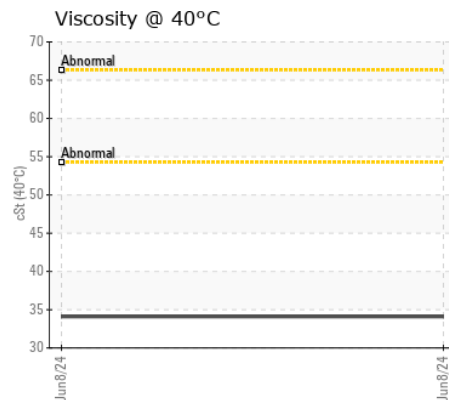
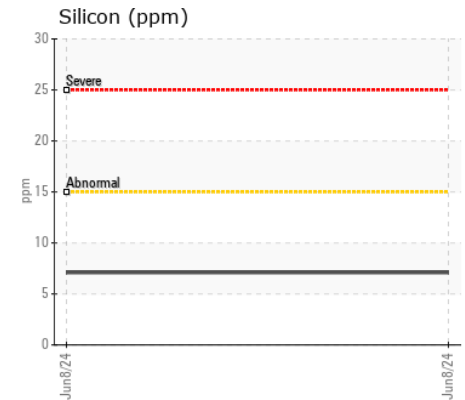
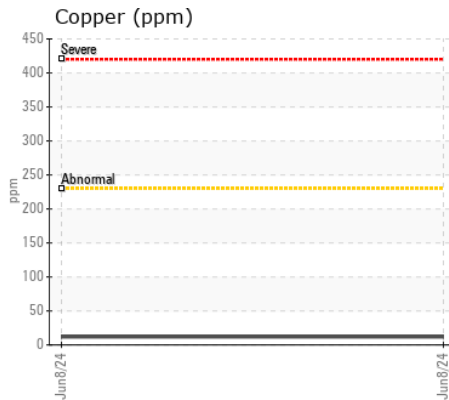
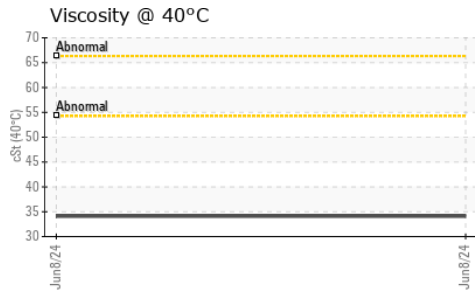
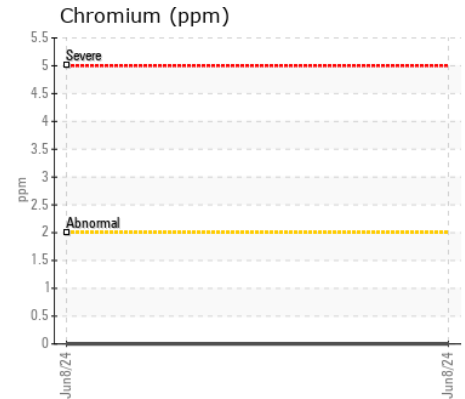
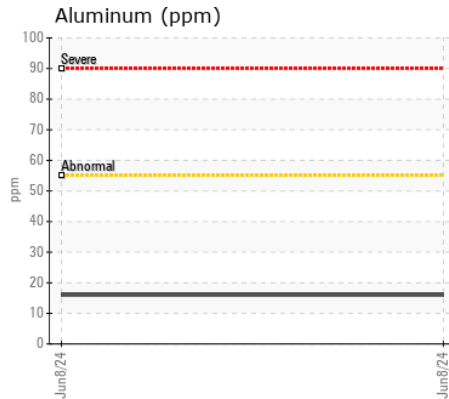
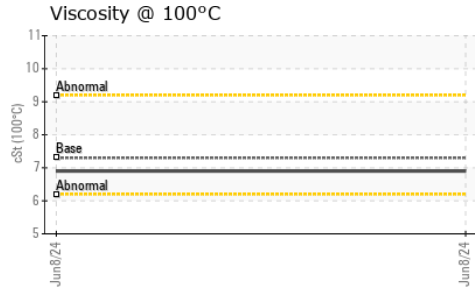
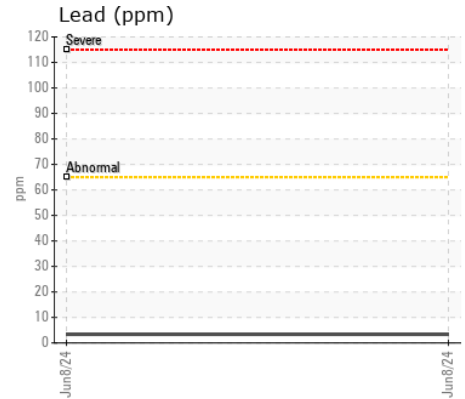
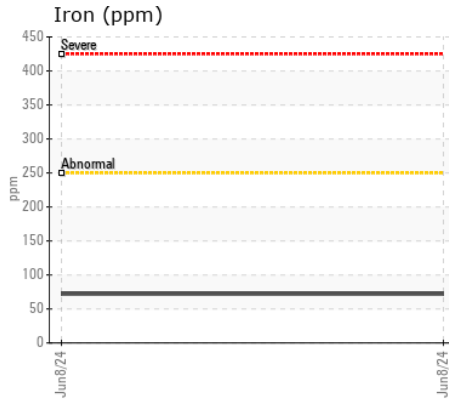
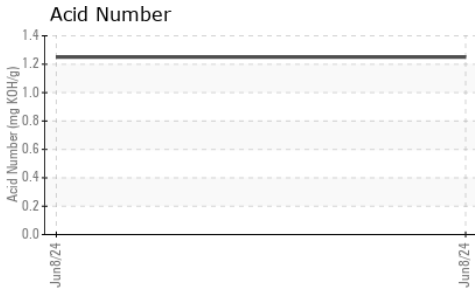
There is no indication of any contamination in the fluid.

| | | | | | | |
|------------------|--------|-------------|-------|-------|-----|-----|
| Silicon | ppm | ASTM D5185m | >15 | 7 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 4 | --- | --- |
| Water | | WC Method | >0.1 | NEG | --- | --- |
| 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 | >0.1 | NEG | --- | --- |

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

| | | | | | | |
|----------------------|----------|-------------|-----|------|-----|-----|
| Sodium | ppm | ASTM D5185m | | 5 | --- | --- |
| Boron | ppm | ASTM D5185m | | 112 | --- | --- |
| Barium | ppm | ASTM D5185m | | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | 0 | --- | --- |
| Manganese | ppm | ASTM D5185m | | 2 | --- | --- |
| Magnesium | ppm | ASTM D5185m | | 2 | --- | --- |
| Calcium | ppm | ASTM D5185m | | 97 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | 330 | --- | --- |
| Zinc | ppm | ASTM D5185m | | 0 | --- | --- |
| Sulfur | ppm | ASTM D5185m | | 1621 | --- | --- |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 1.25 | --- | --- |
| Visc @ 40°C | cSt | ASTM D445 | | 34.1 | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | 7.3 | 6.9 | --- | --- |
| Viscosity Index (VI) | Scale | ASTM D2270 | 193 | 167 | --- | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : TR06210319

Lab Number : 06210319

Unique Number : 11083183

Test Package : MOB 2 (Additional Tests: KV100, VI)

Received : 14 Jun 2024

Tested : 18 Jun 2024

Diagnosed : 18 Jun 2024 - Don Baldrige

MATHIOWETZ CONSTRUCTION COMPANY

30676 COUNTY RD 24

SLEEPY EYE, MN

US 56085

Contact: Jim Warwick

jimwarwick@mathiowetzconst.com

T:

F:

To discuss this sample report, contact Customer Service at 1-800-827-0711.

* - 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)