



FUEL REPORT

Sample Rating Trend

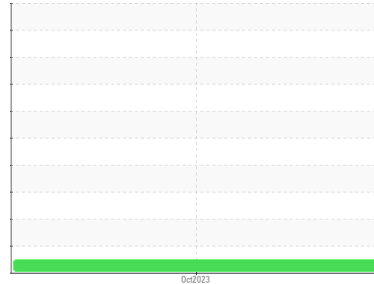
NORMAL



Machine Id
ANGEL MEDICAL HELIPAD AST

Component
Tank Diesel Fuel

Fluid
JET FUEL Type A (--- GAL)



DIAGNOSIS

Recommendation

All laboratory tests indicate that this sample meets ASTM D1655 specifications for Jet-A fuel.

Corrosion

All metal levels are normal indicating no corrosion in the system.

Contaminants

The water content is negligible. There is no bacteria or fungus (yeast and/or mold) indicated in the sample. There is no indication of any contamination in the fuel. The amount and size of particulates present in the system are acceptable.

Fuel Condition

The AN level is acceptable for this fluid. Sulfur value derived by ASTM D5453 method.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|----------|----------|
| Sample Number | Client Info | | | WC0869483 | --- | --- |
| Sample Date | Client Info | | | 18 Oct 2023 | --- | --- |
| Machine Age | hrs | Client Info | | 0 | --- | --- |
| Sample Status | | | | NORMAL | --- | --- |

| PHYSICAL PROPERTIES | | method | limit/base | current | history1 | history2 |
|----------------------------|--------|------------------|------------|--------------|----------|----------|
| Specific Gravity | | *ASTM D1298 | | 0.802 | --- | --- |
| Fuel Color | text | *Visual Screen | | Clear | --- | --- |
| ASTM Color | scalar | *ASTM D1500 | | L0 | --- | --- |
| Visc @ 40°C | cSt | ASTM D445 | <8.0 | 1.33 | --- | --- |
| Pensky-Martens Flash Point | °C | *PMCC Calculated | 38 | 55 | --- | --- |

| SULFUR CONTENT | | method | limit/base | current | history1 | history2 |
|----------------|-----|-------------|------------|------------|----------|----------|
| Sulfur | ppm | ASTM D5185m | <3000 | 501 | --- | --- |
| Sulfur (UVF) | ppm | ASTM D5453 | | 391 | --- | --- |

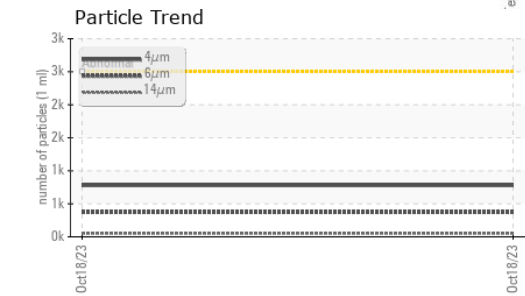
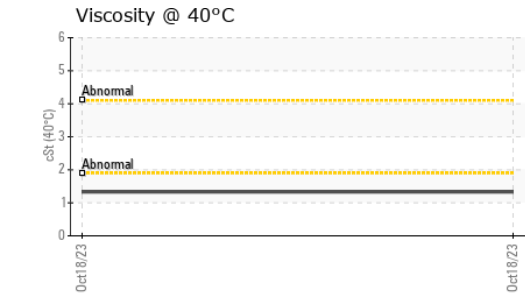
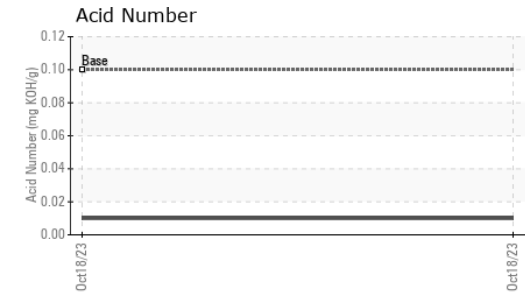
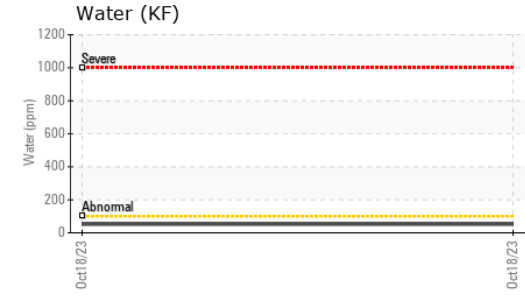
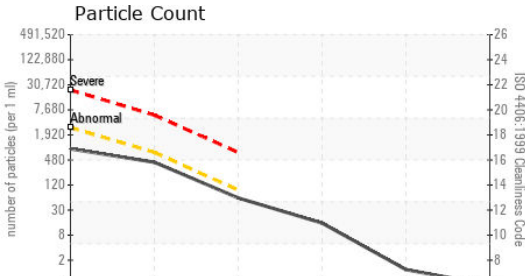
| DISTILLATION | | method | limit/base | current | history1 | history2 |
|------------------------|----|----------|------------|-------------|----------|----------|
| Initial Boiling Point | °C | ASTM D86 | | 150 | --- | --- |
| 5% Distillation Point | °C | ASTM D86 | | 168 | --- | --- |
| 10% Distill Point | °C | ASTM D86 | 205 | 174 | --- | --- |
| 15% Distillation Point | °C | ASTM D86 | | 178 | --- | --- |
| 20% Distill Point | °C | ASTM D86 | | 181 | --- | --- |
| 30% Distill Point | °C | ASTM D86 | | 188 | --- | --- |
| 40% Distill Point | °C | ASTM D86 | | 195 | --- | --- |
| 50% Distill Point | °C | ASTM D86 | | 202 | --- | --- |
| 60% Distill Point | °C | ASTM D86 | | 210 | --- | --- |
| 70% Distill Point | °C | ASTM D86 | | 220 | --- | --- |
| 80% Distill Point | °C | ASTM D86 | | 230 | --- | --- |
| 85% Distillation Point | °C | ASTM D86 | | 236 | --- | --- |
| 90% Distill Point | °C | ASTM D86 | | 244 | --- | --- |
| 95% Distillation Point | °C | ASTM D86 | | 256 | --- | --- |
| Final Boiling Point | °C | ASTM D86 | 300 | 274 | --- | --- |
| Distillation Residue | % | ASTM D86 | 1.5 | 1.2 | --- | --- |
| Distillation Loss | % | ASTM D86 | 1.5 | -0.5 | --- | --- |

| IGNITION QUALITY | | method | limit/base | current | history1 | history2 |
|------------------|--|------------|------------|-------------|----------|----------|
| API Gravity | | ASTM D7777 | 44 | 44.9 | --- | --- |
| Cetane Index | | ASTM D4737 | <40.0 | 46.3 | --- | --- |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | <1.0 | <1 | --- | --- |
| Sodium | ppm | ASTM D5185m | <0.1 | <1 | --- | --- |
| Potassium | ppm | ASTM D5185m | <0.1 | 0 | --- | --- |
| Water | % | ASTM D6304 | <0.05 | 0.005 | --- | --- |
| ppm Water | ppm | ASTM D6304 | <500 | 52 | --- | --- |
| % Gasoline | % | *In-House | <0.50 | 4.1 | --- | --- |
| % Biodiesel | % | *In-House | <20.0 | 0.0 | --- | --- |



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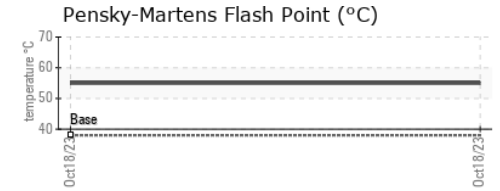
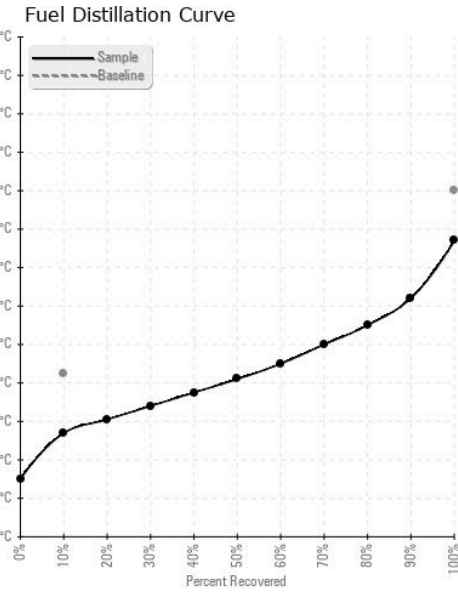


| FLUID CLEANLINESS | method | limit/base | current | history1 | history2 |
|-------------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm | ASTM D7647 | >2500 | 779 | --- | --- |
| Particles >6µm | ASTM D7647 | >640 | 372 | --- | --- |
| Particles >14µm | ASTM D7647 | >80 | 52 | --- | --- |
| Particles >21µm | ASTM D7647 | >20 | 13 | --- | --- |
| Particles >38µm | ASTM D7647 | >4 | 1 | --- | --- |
| Particles >71µm | ASTM D7647 | >3 | 0 | --- | --- |
| Oil Cleanliness | ISO 4406 (c) | >18/16/13 | 17/16/13 | --- | --- |

| HEAVY METALS | method | limit/base | current | history1 | history2 |
|--------------|--------|------------------|----------|----------|----------|
| Aluminum | ppm | ASTM D5185m <0.1 | 0 | --- | --- |
| Nickel | ppm | ASTM D5185m <0.1 | 0 | --- | --- |
| Lead | ppm | ASTM D5185m <0.1 | 0 | --- | --- |
| Vanadium | ppm | ASTM D5185m <0.1 | 0 | --- | --- |
| Iron | ppm | ASTM D5185m <0.1 | 0 | --- | --- |
| Calcium | ppm | ASTM D5185m <0.1 | 0 | --- | --- |
| Magnesium | ppm | ASTM D5185m <0.1 | 0 | --- | --- |
| Phosphorus | ppm | ASTM D5185m <0.1 | 1 | --- | --- |
| Zinc | ppm | ASTM D5185m <0.1 | 0 | --- | --- |

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

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0869483 **Received** : 22 Nov 2023
Lab Number : 06015567 **Diagnosed** : 29 Nov 2023
Unique Number : 10754711 **Diagnostician** : Doug Bogart
Test Package : DF-2 (Additional Tests: Screen, TAN MAN)

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 F: (919)303-7399

Certificate L2367
 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)