



FUEL REPORT

Sample Rating Trend

NORMAL



Area
[410224]
Machine Id
PQ0420

Component
Diesel Fuel
Fluid

No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)



DIAGNOSIS

Recommendation

Laboratory test indicate that this fuel is suitable for use and meets all test requirements. Resample at the next service interval to monitor.

Corrosion

{not applicable}

Contaminants

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. There is no indication of any contamination in the diesel fuel.

Fuel Condition

All laboratory tests indicate that this sample meets specifications for No.2 ultra-low-sulfur diesel fuel (US EPA/CGSB-3.517-3 type B).

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-----------------|--------------------|----------|----------|
| Sample Number | Client Info | CU0021617 | --- | --- |
| Sample Date | Client Info | 08 Jan 2024 | --- | --- |
| Machine Age | hrs Client Info | 3 | --- | --- |
| Sample Status | | NORMAL | --- | --- |

PHYSICAL PROPERTIES

| method | limit/base | current | history1 | history2 | |
|----------------------------|---------------------|---------|--------------|----------|-----|
| Specific Gravity | ASTM D1298* | 0.839 | 0.834 | --- | --- |
| Fuel Color | text Visual Screen* | Yllow | Orang | --- | --- |
| Visc @ 40°C | cSt ASTM D7279(m) | 3.0 | 2.2 | --- | --- |
| Pensky-Martens Flash Point | °C ASTM D7215* | 52 | 48.4 | --- | --- |

SULFUR CONTENT

| method | limit/base | current | history1 | history2 | |
|--------|-------------------|---------|-----------|----------|-----|
| Sulfur | ppm ASTM D5185(m) | 10 | 12 | --- | --- |

DISTILLATION

| method | limit/base | current | history1 | history2 | |
|------------------------|----------------|---------|------------|----------|-----|
| Initial Boiling Point | °C ASTM D2887* | 165 | 155 | --- | --- |
| 5% Distillation Point | °C ASTM D2887* | | 176 | --- | --- |
| 10% Distill Point | °C ASTM D2887* | 201 | 185 | --- | --- |
| 15% Distillation Point | °C ASTM D2887* | | 194 | --- | --- |
| 20% Distill Point | °C ASTM D2887* | 216 | 202 | --- | --- |
| 30% Distill Point | °C ASTM D2887* | 230 | 218 | --- | --- |
| 40% Distill Point | °C ASTM D2887* | 243 | 233 | --- | --- |
| 50% Distill Point | °C ASTM D2887* | 255 | 248 | --- | --- |
| 60% Distill Point | °C ASTM D2887* | 267 | 264 | --- | --- |
| 70% Distill Point | °C ASTM D2887* | 280 | 280 | --- | --- |
| 80% Distill Point | °C ASTM D2887* | 295 | 298 | --- | --- |
| 85% Distillation Point | °C ASTM D2887* | | 310 | --- | --- |
| 90% Distill Point | °C ASTM D2887* | 310 | 322 | --- | --- |
| 95% Distillation Point | °C ASTM D2887* | | 342 | --- | --- |
| Final Boiling Point | °C ASTM D2887* | 341 | 373 | --- | --- |

IGNITION QUALITY

| method | limit/base | current | history1 | history2 | |
|--------------|-------------|---------|-----------|----------|-----|
| API Gravity | ASTM D1298* | 37.7 | 38 | --- | --- |
| Cetane Index | ASTM D4737* | <40.0 | 47 | --- | --- |

CONTAMINANTS

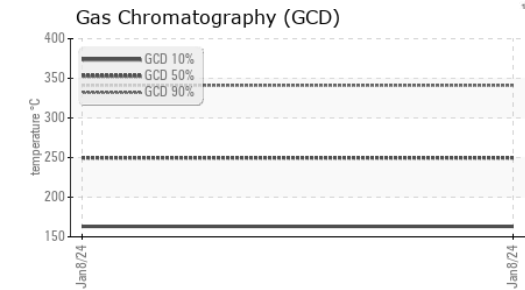
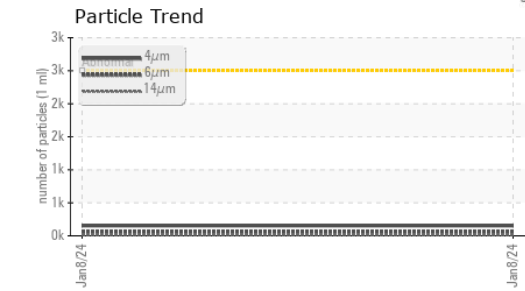
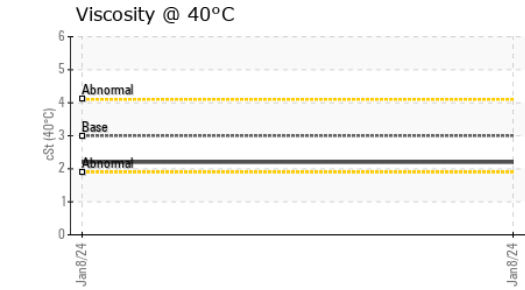
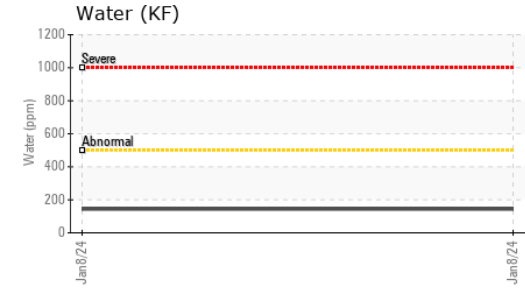
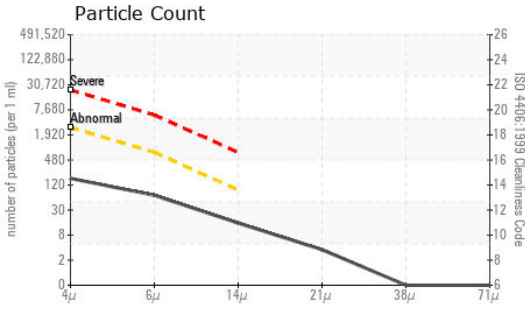
| method | limit/base | current | history1 | history2 | |
|-----------|-------------------|---------|--------------|----------|-----|
| Silicon | ppm ASTM D5185(m) | <1.0 | 0 | --- | --- |
| Sodium | ppm ASTM D5185(m) | <0.1 | <1 | --- | --- |
| Potassium | ppm ASTM D5185(m) | <0.1 | 0 | --- | --- |
| Water | % ASTM D6304* | <0.05 | 0.014 | --- | --- |
| ppm Water | ppm ASTM D6304* | <500 | 144 | --- | --- |

FLUID CLEANLINESS

| method | limit/base | current | history1 | history2 | |
|-----------------|--------------|-----------|-----------------|----------|-----|
| Particles >4µm | ASTM D7647 | >2500 | 153 | --- | --- |
| Particles >6µm | ASTM D7647 | >640 | 60 | --- | --- |
| Particles >14µm | ASTM D7647 | >80 | 13 | --- | --- |
| Particles >21µm | ASTM D7647 | >20 | 3 | --- | --- |
| Particles >38µm | ASTM D7647 | >4 | 0 | --- | --- |
| Particles >71µm | ASTM D7647 | >3 | 0 | --- | --- |
| Oil Cleanliness | ISO 4406 (c) | >18/16/13 | 14/13/11 | --- | --- |



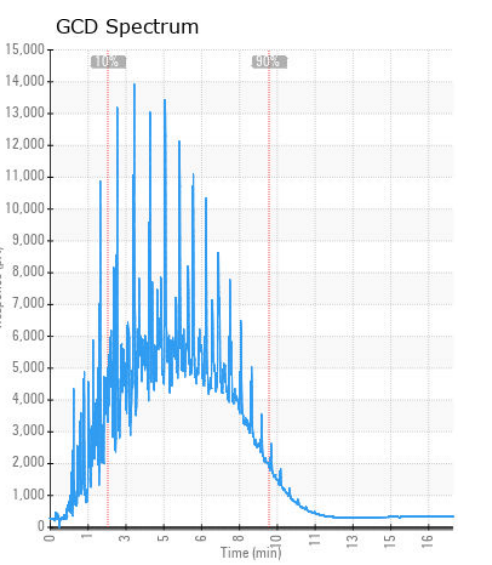
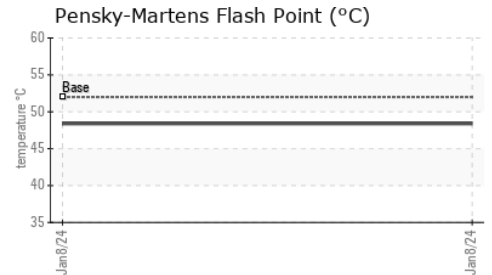
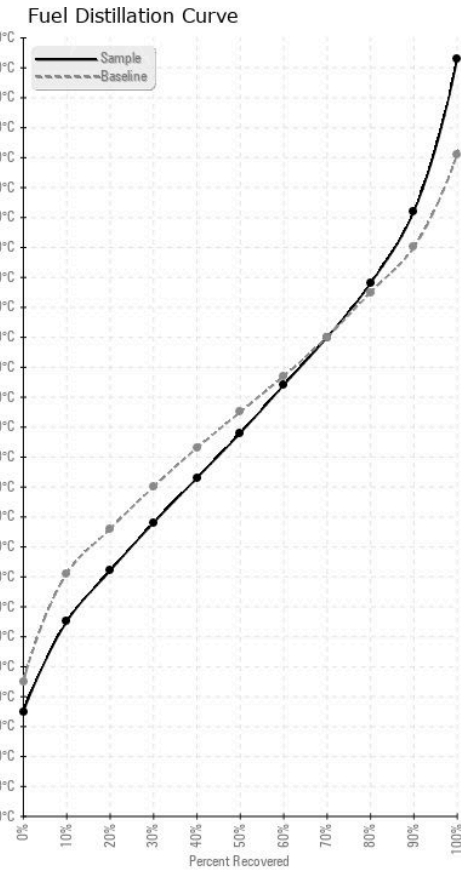
FUEL REPORT



| HEAVY METALS | method | limit/base | current | history1 | history2 | |
|--------------|--------|---------------|---------|----------|----------|-----|
| Aluminum | ppm | ASTM D5185(m) | <0.1 | 0 | --- | --- |
| Nickel | ppm | ASTM D5185(m) | <0.1 | 0 | --- | --- |
| Lead | ppm | ASTM D5185(m) | <0.1 | 0 | --- | --- |
| Vanadium | ppm | ASTM D5185(m) | <0.1 | 0 | --- | --- |
| Iron | ppm | ASTM D5185(m) | <0.1 | 0 | --- | --- |
| Calcium | ppm | ASTM D5185(m) | <0.1 | 0 | --- | --- |
| Magnesium | ppm | ASTM D5185(m) | <0.1 | 0 | --- | --- |
| Phosphorus | ppm | ASTM D5185(m) | <0.1 | <1 | --- | --- |
| Zinc | ppm | ASTM D5185(m) | <0.1 | <1 | --- | --- |

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

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : CU0021617 **Recieved** : 09 Jan 2024
Lab Number : 02607627 **Diagnosed** : 16 Jan 2024
Unique Number : 5708713 **Diagnostician** : Kevin Marson
Test Package : FUEL (Additional Tests: CC Flash, GC-PercFuel, PrtCount)

CUMMINS DIESEL
 2400 AV WATT
 Quebec City, QC
 CA G1P 3T3
 Contact: Jean Verret
 verret.jean@cummins.com
 T: (418)651-2911
 F: (418)651-3157

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.