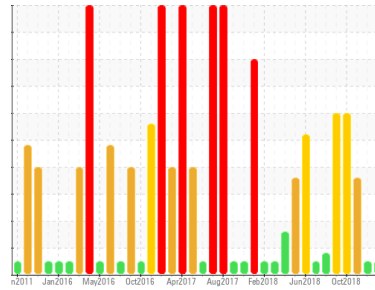




# FUEL REPORT

Sample Rating Trend



NORMAL



Area

**Cranes [71123048]**

Machine Id

**Crane - Fwd Fuel Sample (S/N Sample Tag: MA-04003)**

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. We advise that you filter this fluid before use.

### Corrosion

{not applicable}

### Contaminants

ISO Cleanliness Code (ISO 4406:1999): 19/15/11;  
Cumulative particle counts >4µm = 2968, >6µm = 286, >14µm = 13, >21µm = 4, >38µm = 0, >71µm = 0. There is no Bacteria, Yeast and/or Fungus present in the sample. The water content is negligible.

### 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	history 1	history 2
Sample Number		<b>PC</b>	PP	PC
Sample Date		<b>16 Jan 2019</b>	10 Dec 2018	12 Nov 2018
Machine Age	hrs	<b>0</b>	0	0
Sample Status		<b>NORMAL</b>	NORMAL	ABNORMAL

## PHYSICAL PROPERTIES

method	limit/base	current	history 1	history 2	
Specific Gravity	ASTM D1298	0.839	<b>0.852</b>	0.851	0.850
Fuel Color	text Visual Screen	Yellow	<b>Yellow</b>	Yellow	Yellow
Visc @ 40°C	cSt ASTM D7279(m)	3.0	<b>3.0</b>	2.9	2.8
Pensky-Martens Flash Point	°C ASTM D93	52	<b>69</b>	64	61

## SULFUR CONTENT

method	limit/base	current	history 1	history 2	
Sulfur	ppm ASTM D5185(m)	10	<b>7</b>	12	8

## DISTILLATION

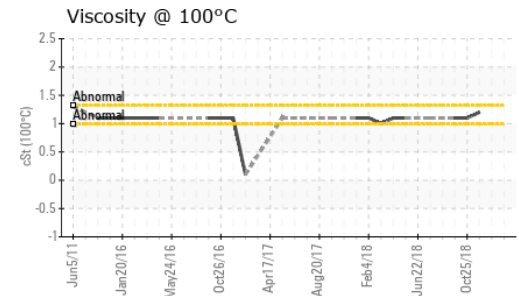
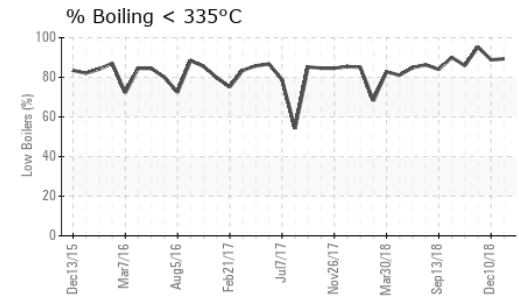
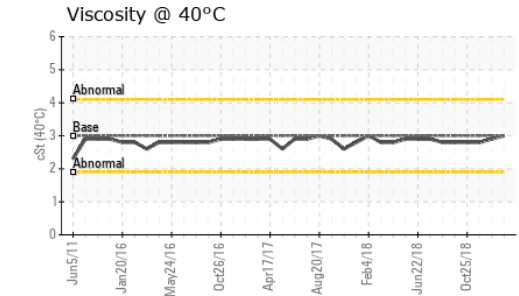
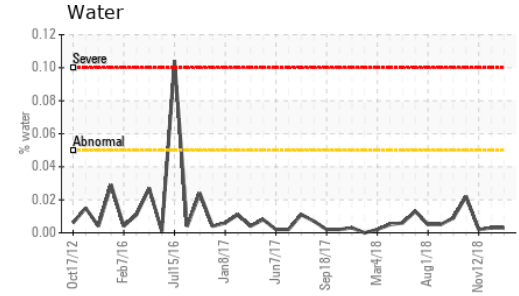
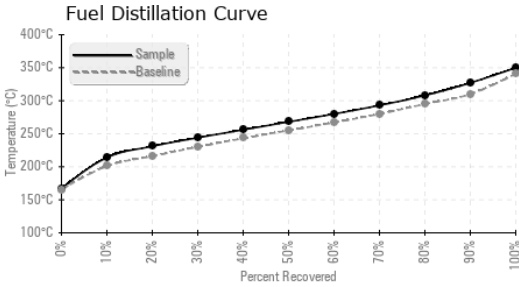
method	limit/base	current	history 1	history 2	
Initial Boiling Point	°C ASTM D2887	165	<b>166</b>	173	168
5% Distillation Point	°C ASTM D2887		<b>200</b>	203	201
10% Distill Point	°C ASTM D2887	201	<b>214</b>	214	214
15% Distillation Point	°C ASTM D2887		<b>224</b>	223	222
20% Distill Point	°C ASTM D2887	216	<b>231</b>	231	230
30% Distill Point	°C ASTM D2887	230	<b>244</b>	244	242
40% Distill Point	°C ASTM D2887	243	<b>256</b>	256	254
50% Distill Point	°C ASTM D2887	255	<b>268</b>	267	266
60% Distill Point	°C ASTM D2887	267	<b>280</b>	280	278
70% Distill Point	°C ASTM D2887	280	<b>293</b>	292	291
80% Distill Point	°C ASTM D2887	295	<b>308</b>	308	307
85% Distillation Point	°C ASTM D2887		<b>316</b>	316	316
90% Distill Point	°C ASTM D2887	310	<b>327</b>	327	328
95% Distillation Point	°C ASTM D2887		<b>342</b>	343	345
Final Boiling Point	°C ASTM D2887	341	<b>350</b>	351	354
Distillation Residue	% ASTM D86(e)	3.0	<b>1.4</b>	1.4	1.4
Distillation Loss	% ASTM D86(e)	3.0	<b>0.7</b>	0.9	0.8

## IGNITION QUALITY

method	limit/base	current	history 1	history 2	
API Gravity	ASTM D1298	37.7	<b>34.6</b>	34.8	35.0
Cetane Value	ASTM D4737	<40.0	<b>46.1</b>	46.4	46.7

## CONTAMINANTS

method	limit/base	current	history 1	history 2	
Silicon	ppm ASTM D5185(m)	<1.0	<b>0</b>	0	0
Sodium	ppm ASTM D5185(m)	<0.1	<b>&lt;1</b>	<1	<1
Potassium	ppm ASTM D5185(m)	<0.1	<b>0</b>	0	0
Water	% ASTM D6304	<0.05	<b>0.003</b>	0.003	0.002
ppm Water	ppm ASTM D6304	<500	<b>33.4</b>	31.7	23.6



FLUID CLEANLINESS	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647	>2500	<b>2968</b>	6039	2064
Particles >6µm	ASTM D7647	>640	<b>286</b>	1384	257
Particles >14µm	ASTM D7647	>80	<b>13</b>	88	6
Particles >21µm	ASTM D7647	>20	<b>4</b>	15	2
Particles >38µm	ASTM D7647	>4	<b>0</b>	0	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	<b>19/15/11</b>	20/18/14	18/15/10

MICROBIAL	method	limit/base	current	history 1	history 2
Bacteria	colonies WC-Method	None	<b>0</b>	0	▲ 1000
Yeast	cfu/ml WC-Method	None	<b>0</b>	0	0
Mold	cfu/ml WC-Method	None	<b>NONE</b>	NONE	NONE

HEAVY METALS	method	limit/base	current	history 1	history 2
Aluminum	ppm ASTM D5185(m)	<0.1	<b>0</b>	0	0
Nickel	ppm ASTM D5185(m)	<0.1	<b>0</b>	0	0
Lead	ppm ASTM D5185(m)	<0.1	<b>0</b>	0	0
Vanadium	ppm ASTM D5185(m)	<0.1	<b>0</b>	0	0
Iron	ppm ASTM D5185(m)	<0.1	<b>0</b>	<1	0
Calcium	ppm ASTM D5185(m)	<0.1	<b>0</b>	0	0
Magnesium	ppm ASTM D5185(m)	<0.1	<b>0</b>	0	0
Phosphorus	ppm ASTM D5185(m)	<0.1	<b>0</b>	0	0
Zinc	ppm ASTM D5185(m)	<0.1	<b>0</b>	0	0

SAMPLE IMAGES	method	limit/base	current	history 1	history 2
Color					
Bottom					



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC1234567 **Received** : 17 Jan 2019  
**Lab Number** : **01234567** **Diagnosed** : 04 Feb 2019  
**Unique Number** : 12345678 **Diagnostician** : Kevin Marson  
**Test Package** : FUEL ( Additional Tests: API, Bacteria, CC Flash, Cetane, GasChr, GC-PercFuel, KV100, PrtCount )  
 To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 (m) Denotes a modified test method, (e) Denotes a test conducted using an external laboratory.

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