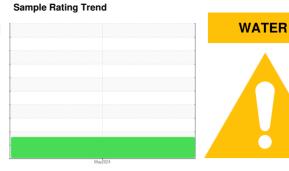


# **FUEL REPORT**

# **COMPASS DATA CENTERS [154375]** F220094297

**Diesel Fuel** 

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



#### **DIAGNOSIS**

#### Recommendation

We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition.

### Contaminants

Free water present. There is no bacteria or fungus (yeast and/or mold) present in the sample. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

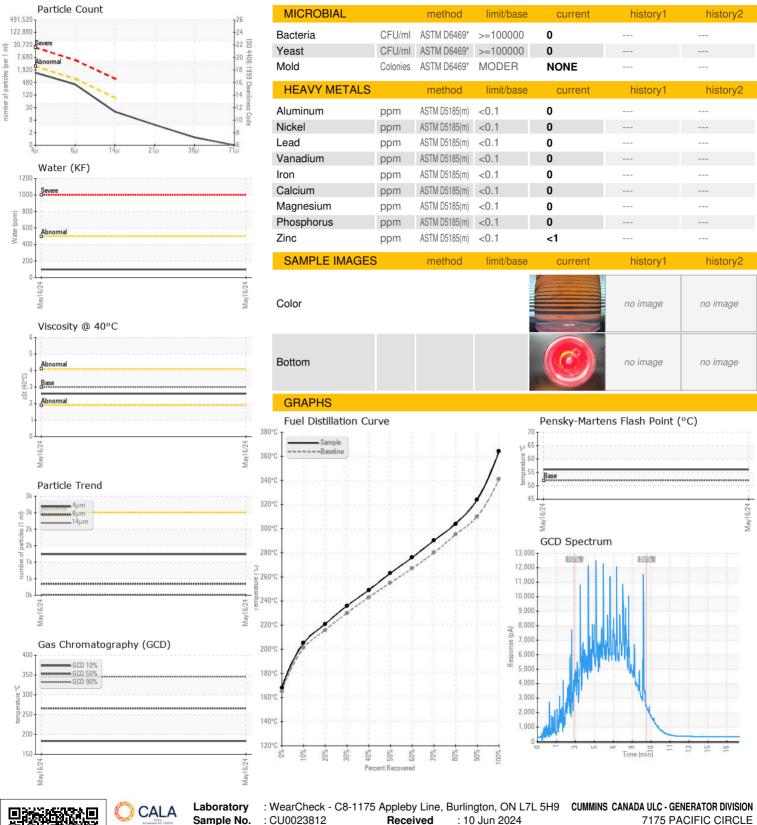
#### **Fuel Condition**

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	i) ( GAL)						
Client Info	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age   Armonimor   Age   Amount   Age   Amount   Age   Amount   Age   Age	Sample Number		Client Info		CU0023812		
PHYSICAL PROPERTIES   method   limit/base   current   history1   history2	Sample Date		Client Info		16 May 2024		
PHYSICAL PROPERTIES   method   limit/base   current   history1   history2	Machine Age	hrs	Client Info		75		
Specific Gravity	Sample Status				ABNORMAL		
Specific Gravity   ASTM D1298'   0.839   0.842	PHYSICAL PROP	ERTIES	method	limit/base	current	history1	history2
Fuel Color	Specific Gravity		ASTM D1298*	0.839	0.842		
Visc @ 40°C         cSt         ASTM D7279(m)         3.0         2.6             Pensky-Martens Rash Point         °C         ASTM D7215°         52         56.1             SULFUR CONTENT         method         limit/base         current         history1         history2           DISTILLATION         method         limit/base         current         history1         history2           Initial Boiling Point         °C         ASTM D2887°         165         168             5% Distillation Point         °C         ASTM D2887°         201         205             10% Distill Point         °C         ASTM D2887°         201         205             20% Distill Point         °C         ASTM D2887°         201         205             30% Distill Point         °C         ASTM D2887°         216         221             40% Distill Point         °C         ASTM D2887°         230         236             50% Distill Point         °C         ASTM D2887°         267         276        <	•	text					
Pensky-Marters Flash Point   °C   ASTM D7215"   52   56.1           SULFUR CONTENT   method   limit/base   current   history1   history2       Sulfur   ppm   ASTM D5185 m    10   6           DISTILLATION   method   limit/base   current   history1   history2       Initial Boiling Point   °C   ASTM D2887"   165   168           5% Distillation Point   °C   ASTM D2887"   201   205           15% Distillation Point   °C   ASTM D2887"   201   205           20% Distill Point   °C   ASTM D2887"   213           20% Distill Point   °C   ASTM D2887"   230   236           20% Distill Point   °C   ASTM D2887"   243   249           20% Distill Point   °C   ASTM D2887"   255   263           20% Distill Point   °C   ASTM D2887"   255   263           20% Distill Point   °C   ASTM D2887"   267   276           20% Distill Point   °C   ASTM D2887"   295   304           20% Distill Point   °C   ASTM D2887"   295   304           20% Distill Point   °C   ASTM D2887"   295   304           20% Distill Point   °C   ASTM D2887"   314           20% Distill Point   °C   ASTM D2887"   310   324             20% Distill Point   °C   ASTM D2887"   310   324             20% Distill Point   °C							
SULFUR CONTENT         method         limit/base         current         history1         history2           Sulfur         ppm         ASTM D5185(m)         10         6             DISTILLATION         method         limit/base         current         history1         history2           Initial Boiling Point         °C         ASTM D2887*         165         168             5% Distillation Point         °C         ASTM D2887*         201         205             15% Distillation Point         °C         ASTM D2887*         213             20% Distill Point         °C         ASTM D2887*         216         221             30% Distill Point         °C         ASTM D2887*         243         249             50% Distill Point         °C         ASTM D2887*         280         290             50% Distill Point         °C         ASTM D2887*         280         290             80% Distill Point         °C         ASTM D2887*         280         290 <th< td=""><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td></th<>					-		
DISTILLATION	,						hietory?
DISTILLATION							HIStoryZ
Initial Boiling Point   °C   ASTM D2887'   165   168		ррпі	. ,				
5% Distillation Point         °C         ASTM D2887*         201         205             15% Distillation Point         °C         ASTM D2887*         201         205             20% Distill Point         °C         ASTM D2887*         216         221             30% Distill Point         °C         ASTM D2887*         216         221             40% Distill Point         °C         ASTM D2887*         216         221             50% Distill Point         °C         ASTM D2887*         280         249             60% Distill Point         °C         ASTM D2887*         267         276             60% Distill Point         °C         ASTM D2887*         280         290             80% Distill Point         °C         ASTM D2887*         310         324             85% Distillation Point         °C         ASTM D2887*         31         364             Final Boiling Point         °C         ASTM D2887*         341         364						history1	history2
10% Distill Point				165			
15% Distillation Point °C ASTM D2887' 216 221		_			-		
20% Distill Point	10% Distill Point			201	205		
30% Distill Point			ASTM D2887*		213		
40% Distill Point	20% Distill Point			216			
50% Distill Point         °C         ASTM D2887*         255         263             60% Distill Point         °C         ASTM D2887*         267         276             70% Distill Point         °C         ASTM D2887*         280         290             85% Distillation Point         °C         ASTM D2887*         314             90% Distill Point         °C         ASTM D2887*         310         324             95% Distillation Point         °C         ASTM D2887*         341         364             Final Boiling Point         °C         ASTM D2887*         341         364             IGNITION QUALITY         method         limit/base         current         history1         history2           API Gravity         ASTM D1298*         37.7         36             Cetane Index         ASTM D5185(m)         <1.0	30% Distill Point	_	ASTM D2887*	230	236		
60% Distill Point °C ASTM D2887* 267 276			ASTM D2887*	243	249		
70% Distill Point   °C   ASTM D2887'   280   290       80% Distill Point   °C   ASTM D2887'   295   304       85% Distillation Point   °C   ASTM D2887'   314       90% Distill Point   °C   ASTM D2887'   310   324       95% Distillation Point   °C   ASTM D2887'   339         95% Distillation Point   °C   ASTM D2887'   341   364	50% Distill Point	°C	ASTM D2887*	255	263		
80% Distill Point         °C         ASTM D2887*         295         304             85% Distillation Point         °C         ASTM D2887*         314             90% Distill Point         °C         ASTM D2887*         310         324             95% Distillation Point         °C         ASTM D2887*         341         364             Final Boiling Point         °C         ASTM D2887*         341         364             IGNITION QUALITY         method         limit/base         current         history1         history2           API Gravity         ASTM D1988*         37.7         36             Cetane Index         ASTM D4737*         <40.0	60% Distill Point		ASTM D2887*	267	276		
85% Distillation Point         °C         ASTM D2887*         314             90% Distill Point         °C         ASTM D2887*         310         324             95% Distillation Point         °C         ASTM D2887*         341         364             Final Boiling Point         °C         ASTM D2887*         341         364             IGNITION QUALITY         method         limit/base         current         history1         history2           API Gravity         ASTM D1298*         37.7         36             Cetane Index         ASTM D4737*         <40.0	70% Distill Point	°C	ASTM D2887*	280	290		
90% Distill Point °C ASTM D2887* 310 324 95% Distillation Point °C ASTM D2887* 341 364	80% Distill Point	°C	ASTM D2887*	295	304		
95% Distillation Point         °C         ASTM D2887*         341         364             Final Boiling Point         °C         ASTM D2887*         341         364             IGNITION QUALITY         method         limit/base         current         history1         history2           API Gravity         ASTM D1298*         37.7         36             Cetane Index         ASTM D4737*         <40.0		°C	ASTM D2887*		314		
Final Boiling Point	90% Distill Point	°C	ASTM D2887*	310	324		
IGNITION QUALITY   method   limit/base   current   history1   history2		°C	ASTM D2887*		339		
API Gravity         ASTM D1298*         37.7         36             Cetane Index         ASTM D4737*         <40.0         48             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         <1.0	Final Boiling Point	°C	ASTM D2887*	341	364		
Cetane Index         ASTM D4737*         <40.0	IGNITION QUALIT	ГҮ	method	limit/base	current	history1	history2
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         <1.0	API Gravity		ASTM D1298*	37.7	36		
Silicon         ppm         ASTM D5185(m)         <1.0         3             Sodium         ppm         ASTM D5185(m)         <0.1	Cetane Index		ASTM D4737*	<40.0	48		
Sodium         ppm         ASTM D5185(m)         < 0.1	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185(m)         < 0.1         <1             Water         %         ASTM D6304*         <0.05         0.009             ppm Water         ppm         ASTM D6304*         <500         98             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >2500         1241             Particles >6μm         ASTM D7647         >640         344             Particles >14μm         ASTM D7647         >80         17             Particles >21μm         ASTM D7647         >20         4             Particles >38μm         ASTM D7647         >4         1             Particles >71μm         ASTM D7647         >3         0	Silicon	ppm	ASTM D5185(m)	<1.0	3		
Water         %         ASTM D6304*         <0.05         0.009             ppm Water         ppm         ASTM D6304*         <500         98             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >2500         1241             Particles >6μm         ASTM D7647         >640         344             Particles >14μm         ASTM D7647         >80         17             Particles >21μm         ASTM D7647         >20         4             Particles >38μm         ASTM D7647         >4         1             Particles >71μm         ASTM D7647         >3         0	Sodium	ppm	ASTM D5185(m)	<0.1	<1		
ppm Water         ppm         ASTM D6304*         <500         98             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >2500         1241             Particles >6μm         ASTM D7647         >640         344             Particles >14μm         ASTM D7647         >80         17             Particles >21μm         ASTM D7647         >20         4             Particles >38μm         ASTM D7647         >4         1             Particles >71μm         ASTM D7647         >3         0	Potassium	ppm	ASTM D5185(m)	< 0.1	<1		
FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >2500         1241             Particles >6μm         ASTM D7647         >640         344             Particles >14μm         ASTM D7647         >80         17             Particles >21μm         ASTM D7647         >20         4             Particles >38μm         ASTM D7647         >4         1             Particles >71μm         ASTM D7647         >3         0	Water	%	ASTM D6304*	< 0.05	0.009		
Particles >4μm       ASTM D7647       >2500       1241           Particles >6μm       ASTM D7647       >640       344           Particles >14μm       ASTM D7647       >80       17           Particles >21μm       ASTM D7647       >20       4           Particles >38μm       ASTM D7647       >4       1           Particles >71μm       ASTM D7647       >3       0	ppm Water	ppm	ASTM D6304*	< 500	98		
Particles >6μm       ASTM D7647       >640       344           Particles >14μm       ASTM D7647       >80       17           Particles >21μm       ASTM D7647       >20       4           Particles >38μm       ASTM D7647       >4       1           Particles >71μm       ASTM D7647       >3       0	FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >14μm       ASTM D7647       >80       17           Particles >21μm       ASTM D7647       >20       4           Particles >38μm       ASTM D7647       >4       1           Particles >71μm       ASTM D7647       >3       0	Particles >4µm		ASTM D7647	>2500	1241		
Particles >21μm       ASTM D7647       >20       4           Particles >38μm       ASTM D7647       >4       1           Particles >71μm       ASTM D7647       >3       0	Particles >6µm		ASTM D7647	>640	344		
Particles >38μm       ASTM D7647       >4       1           Particles >71μm       ASTM D7647       >3       0	Particles >14µm		ASTM D7647	>80	17		
Particles >71μm	Particles >21µm		ASTM D7647	>20	4		
	Particles >38µm		ASTM D7647	>4	1		
Oil Cleanliness ISO 4406 (c) >18/16/13 17/16/11	Particles >71µm		ASTM D7647	>3	0		
	Oil Cleanliness		ISO 4406 (c)	>18/16/13	17/16/11		



## **FUEL REPORT**





ISO 17025:2017 Accredited Laboratory

Sample No.

Lab Number : 02640915

: CU0023812 Unique Number : 5798454

Received

**Tested** Diagnosed

: 17 Jun 2024

: 17 Jun 2024 - Kevin Marson Test Package : FUEL ( Additional Tests: Bacteria, CC Flash, PrtCount )

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.

CA L5T 2A5 Contact: Elisia Johnson elisia.johnson@cummins.com

T: (905)795-0050 F: (905)795-9252

MISSISSAUGA, ON