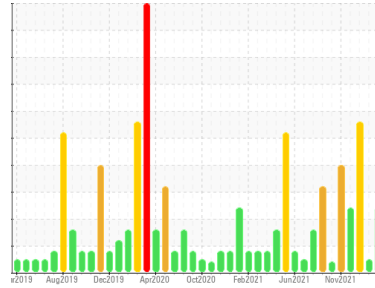


FUEL REPORT

Sample Rating Trend



WATER



Area
Cranes
Machine Id
Crane - Fwd Fuel Sample (S/N Sample Tag: MA-04003)
Component
Diesel Fuel
Fluid
No.2 DIESEL FUEL (LOW-SULPHUR) (--- GAL)

DIAGNOSIS

Recommendation

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

Corrosion

{not applicable}

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 diesel fuel, low sulfur (US EPA/CGSB-3.517-3 type B).

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PC	PC0053016	PC
Sample Date	Client Info	15 Aug 2023	02 May 2023	28 Mar 2023
Machine Age	hrs	0	0	0
Sample Status		ABNORMAL	NORMAL	ABNORMAL

PHYSICAL PROPERTIES

method	limit/base	current	history1	history2		
Specific Gravity	ASTM D1298*	0.839	0.844	0.838	0.840	
Fuel Color	text	Visual Screen*	Yllow	Yllow	DkYlw	
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	2.8	2.8	3.1
Pensky-Martens Flash Point	°C	ASTM D7215*	52	62	62.1	64.6

SULFUR CONTENT

method	limit/base	current	history1	history2		
Sulfur	ppm	ASTM D5185(m)	250	48	58	217

DISTILLATION

method	limit/base	current	history1	history2		
Initial Boiling Point	°C	ASTM D2887*	165	172	173	175
5% Distillation Point	°C	ASTM D2887*		196	195	197
10% Distill Point	°C	ASTM D2887*	201	209	207	209
15% Distillation Point	°C	ASTM D2887*		218	216	218
20% Distill Point	°C	ASTM D2887*	216	227	224	228
30% Distill Point	°C	ASTM D2887*	230	243	240	246
40% Distill Point	°C	ASTM D2887*	243	256	254	261
50% Distill Point	°C	ASTM D2887*	255	269	268	276
60% Distill Point	°C	ASTM D2887*	267	283	282	292
70% Distill Point	°C	ASTM D2887*	280	297	297	308
80% Distill Point	°C	ASTM D2887*	295	313	313	327
85% Distillation Point	°C	ASTM D2887*		325	324	340
90% Distill Point	°C	ASTM D2887*	310	336	336	354
95% Distillation Point	°C	ASTM D2887*		355	355	377
Final Boiling Point	°C	ASTM D2887*	341	375	374	396

IGNITION QUALITY

method	limit/base	current	history1	history2	
API Gravity	ASTM D1298*	37.7	36	37	36
Cetane Index	ASTM D4737*	<40.0	49	51	51

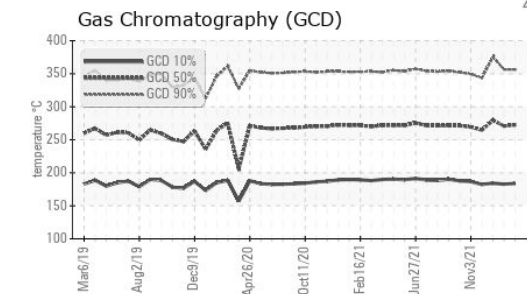
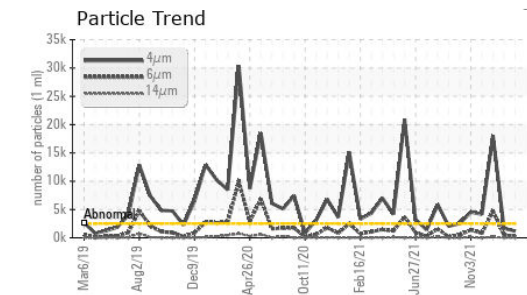
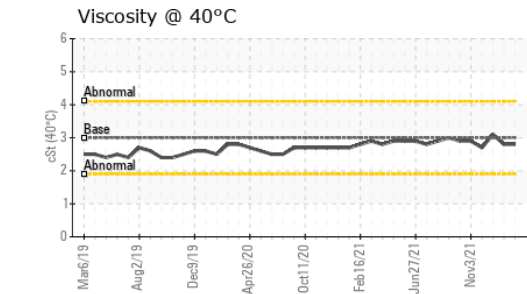
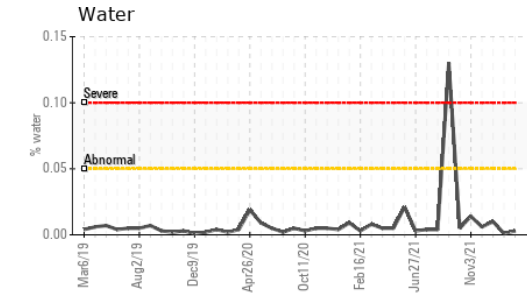
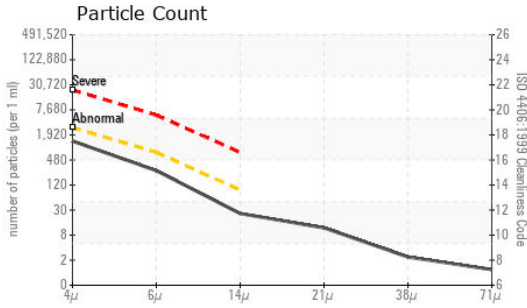
CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	<1.0	0	0	0
Sodium	ppm	ASTM D5185(m)	<0.1	0	0	<1
Potassium	ppm	ASTM D5185(m)	<0.1	<1	0	0
Water	%	ASTM D6304*	<0.05	0.003	0.001	0.010
ppm Water	ppm	ASTM D6304*	<500	37.5	13.1	102.6

FLUID CLEANLINESS

method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>2500	1202	1666	▲ 18092
Particles >6µm	ASTM D7647	>640	234	501	▲ 4720
Particles >14µm	ASTM D7647	>80	22	39	▲ 147
Particles >21µm	ASTM D7647	>20	10	9	18
Particles >38µm	ASTM D7647	>4	2	0	0
Particles >71µm	ASTM D7647	>3	1	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	17/15/12	18/16/12	▲ 21/19/14

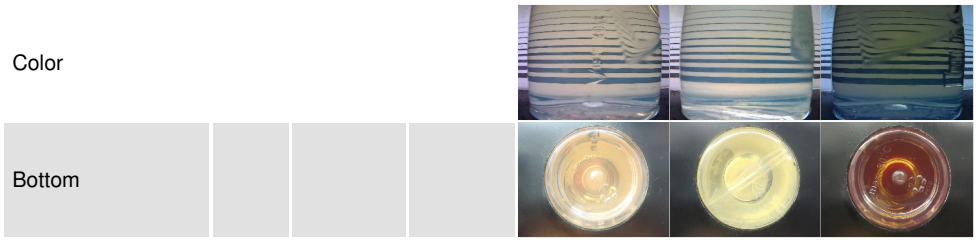
FUEL REPORT



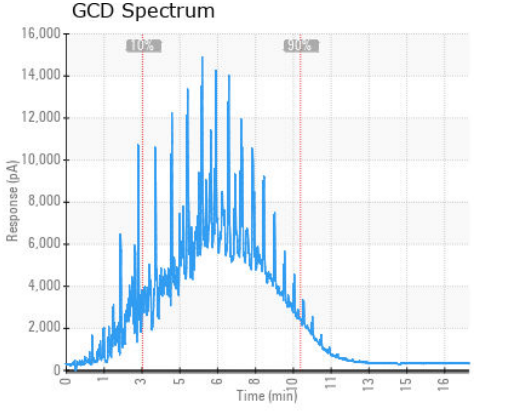
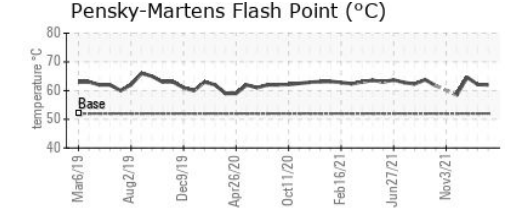
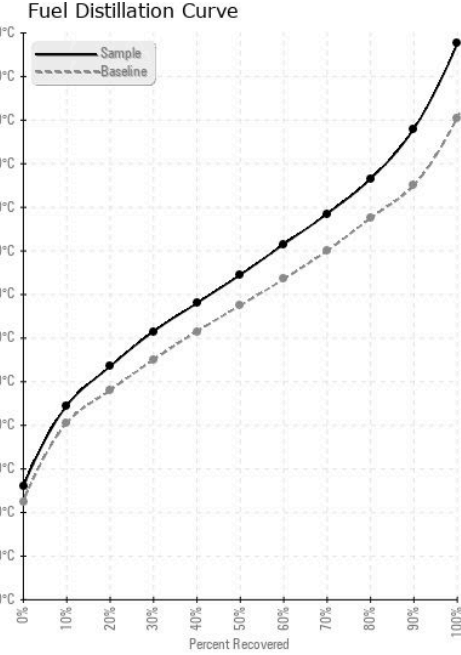
MICROBIAL	method	limit/base	current	history1	history2
Bacteria	CFU/ml ASTM D6469*	>=100000	0	---	▲ 10000
Yeast	CFU/ml ASTM D6469*	>=100000	0	---	▲ 10000
Mold	Colonies ASTM D6469*	MODER	NONE	---	NONE

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

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC
Lab Number : 02576304
Unique Number : 5629364
Test Package : FUEL (Additional Tests: Bacteria, CC Flash, GC-PercFuel, PrtCount)
Received : 16 Aug 2023
Diagnosed : 21 Aug 2023
Diagnostician : Kevin Marson

Suncor - Terra Nova Projects
 Scotia Centre, 235 Water Street
 St. John's, NL
 CA A1C 1B6
 Contact: Josh Hynes
 joshhynes@suncor.com
 T: (709)778-3575
 F: (709)724-2835

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.