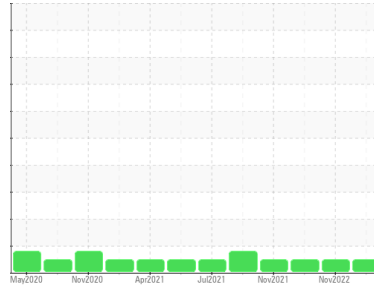


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
DR168

Component
Diesel Engine

Fluid
PETRO CANADA DURON UHP 5W40 (41 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PC0078251	PC0056647	PC
Sample Date	Client Info	05 Aug 2023	10 Nov 2022	24 Aug 2022
Machine Age	hrs	14220	1398	0
Oil Age	hrs	250	0	0
Oil Changed	Client Info	Changed	N/A	N/A
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	<1.0
Glycol	WC Method	NEG	NEG	0.0

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >100	54	23	31
Chromium	ppm ASTM D5185(m) >20	1	<1	<1
Nickel	ppm ASTM D5185(m) >4	<1	<1	<1
Titanium	ppm ASTM D5185(m)	<1	<1	<1
Silver	ppm ASTM D5185(m) >3	0	0	<1
Aluminum	ppm ASTM D5185(m) >20	12	9	6
Lead	ppm ASTM D5185(m) >40	3	1	3
Copper	ppm ASTM D5185(m) >330	77	14	68
Tin	ppm ASTM D5185(m) >15	<1	<1	<1
Antimony	ppm ASTM D5185(m)	0	<1	0
Vanadium	ppm ASTM D5185(m)	0	0	0
Beryllium	ppm ASTM D5185(m)	0	0	0
Cadmium	ppm ASTM D5185(m)	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 65	44	39	50
Barium	ppm ASTM D5185(m) 0	0	0	0
Molybdenum	ppm ASTM D5185(m) 65	57	57	57
Manganese	ppm ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm ASTM D5185(m) 1160	1067	1053	1068
Calcium	ppm ASTM D5185(m) 820	791	823	806
Phosphorus	ppm ASTM D5185(m) 1160	1036	1041	1013
Zinc	ppm ASTM D5185(m) 1260	1140	1153	1174
Sulfur	ppm ASTM D5185(m) 3000	2704	2789	2820
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	5	3	4
Sodium	ppm ASTM D5185(m)	9	6	8
Potassium	ppm ASTM D5185(m) >20	29	17	5

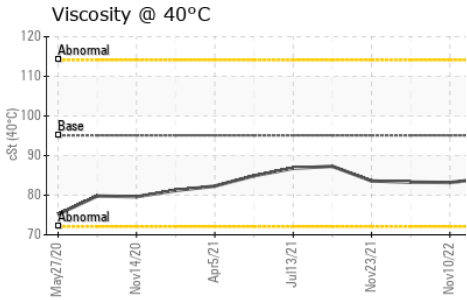
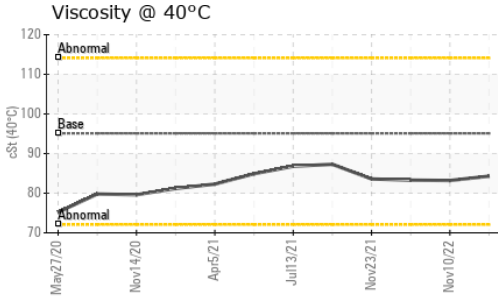
INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0.3	0.2	0.3
Nitration	Abs/cm ASTM D7624* >20	8.6	8.1	8.3
Sulfation	Abs/.1mm ASTM D7415* >30	21.5	21.2	21.6

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	17.5	18.0	18.1

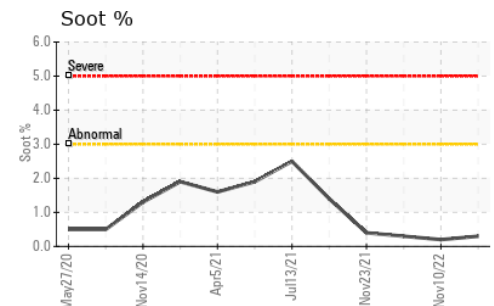
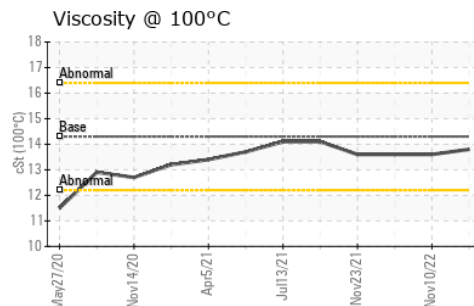
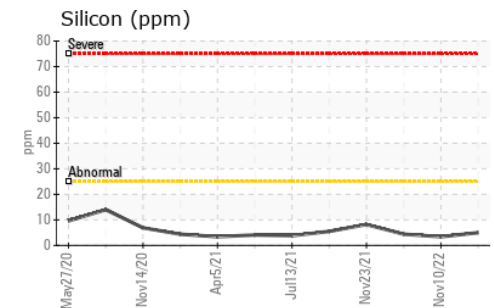
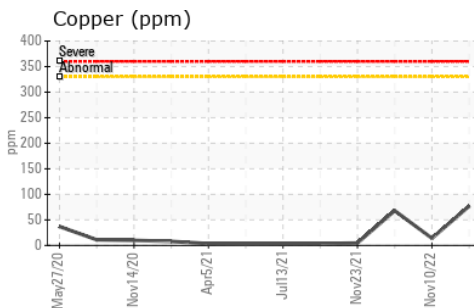
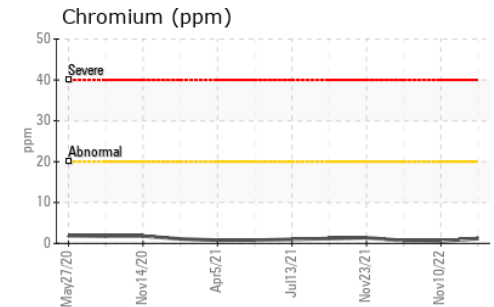
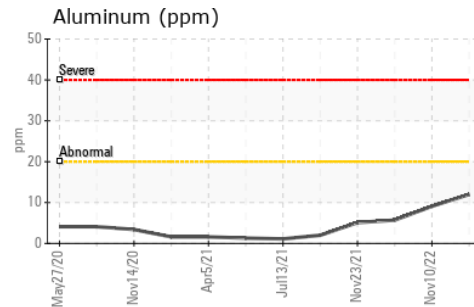
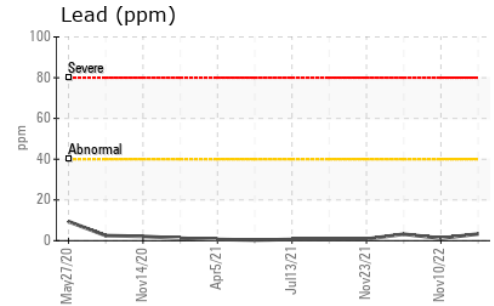
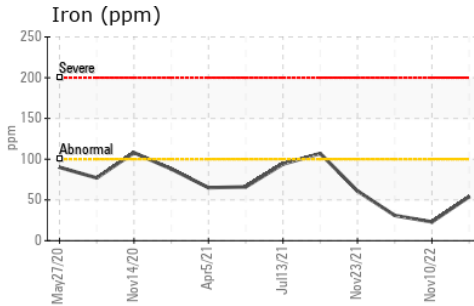
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	84.3	83.2
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	13.8	13.6
Viscosity Index (VI)	Scale	ASTM D2270*	169	168	167

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations
Sample No. : PC0078251 **Received** : 28 Aug 2023
Lab Number : **02578728** **Diagnosed** : 28 Aug 2023
Unique Number : 5631788 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: KV40, VI)

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.

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