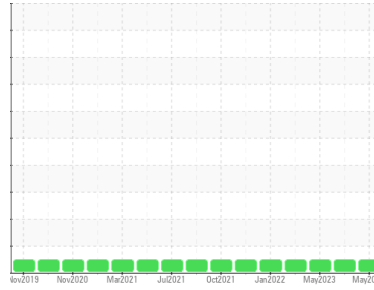


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

351107

Component

Diesel Engine

Fluid

PETRO CANADA SUPREME SYNTHETIC 5W40 (20 LTR)

DIAGNOSIS

Recommendation

We advise that you check for faulty combustion and a possible overheat condition. The oil change at the time of sampling has been noted. 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

A small degree of oil oxidation was indicated. The oil is no longer serviceable.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PC0088290	PC0078576	PC0075303
Sample Date	Client Info			02 May 2024	24 Jul 2023	01 May 2023
Machine Age	hrs	Client Info		8677	0	7280
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	<1.0	<1.0
Water	WC Method	>0.2		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	0.0

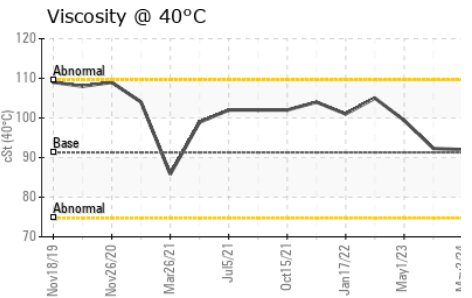
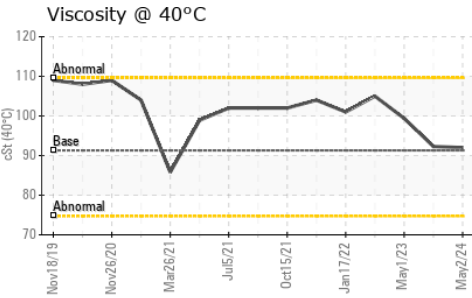
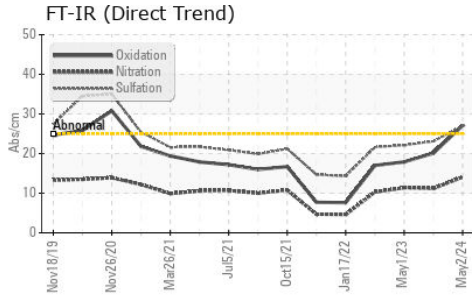
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	31	21	16
Chromium	ppm	ASTM D5185(m)	>20	<1	1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	5	3	5
Lead	ppm	ASTM D5185(m)	>40	0	0	0
Copper	ppm	ASTM D5185(m)	>330	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Antimony	ppm	ASTM D5185(m)		0	0	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)	190	23	27	46
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	79	61	58	71
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	564	927	851	19
Calcium	ppm	ASTM D5185(m)	993	1058	1109	2315
Phosphorus	ppm	ASTM D5185(m)	763	930	1026	1074
Zinc	ppm	ASTM D5185(m)	835	1186	1171	1162
Sulfur	ppm	ASTM D5185(m)	2536	2753	2912	4072
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	4	4	4
Sodium	ppm	ASTM D5185(m)		9	8	6
Potassium	ppm	ASTM D5185(m)	>20	7	4	5

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.9	0.6	0.4
Nitration	Abs/cm	ASTM D7624*	>20	14.1	11.2	11.4
Sulfation	Abs./1mm	ASTM D7415*	>30	26.9	23.1	22.1

OIL ANALYSIS REPORT

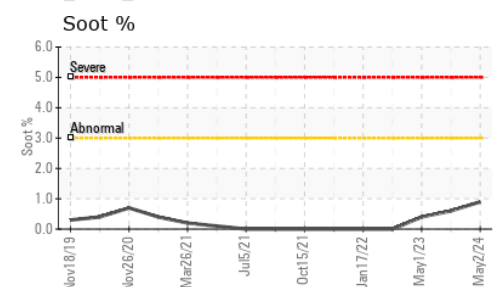
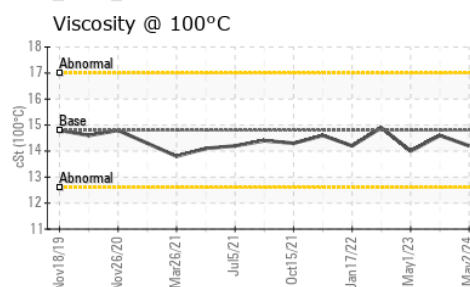
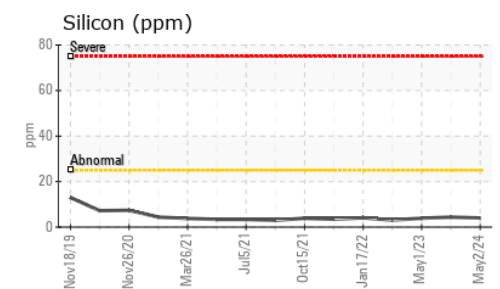
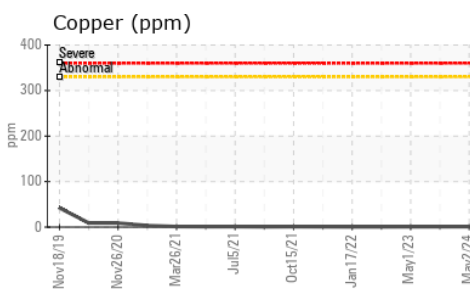
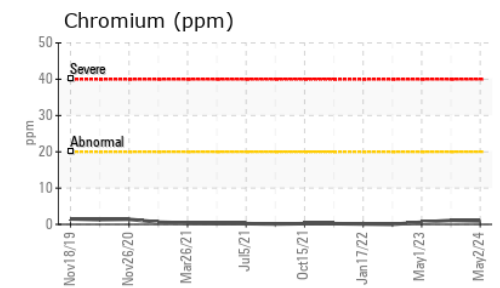
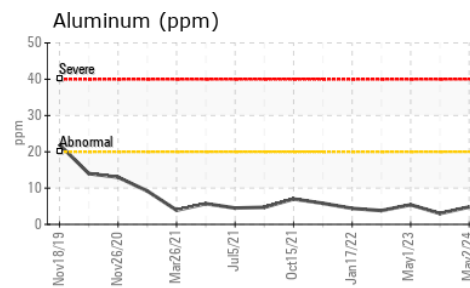
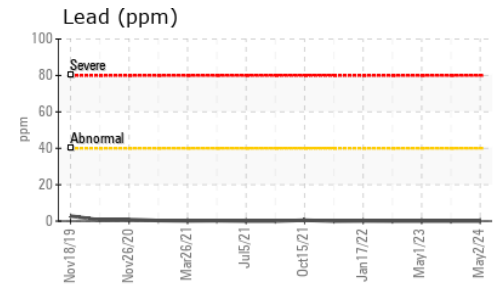
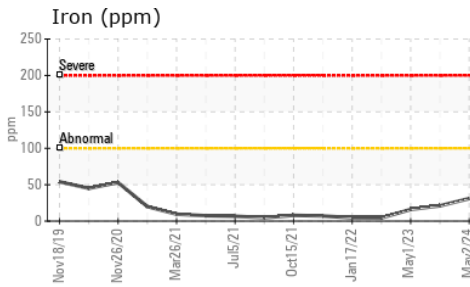


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	27.1	20.1	17.9

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	91.3	92.0	92.3	99.4
Visc @ 100°C	cSt	ASTM D7279(m)	14.8	14.2	14.6	14.0
Viscosity Index (VI)	Scale	ASTM D2270*	170	159	164	143

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations**
Sample No. : PC0088290 **Received** : 10 May 2024 **151 Ram Forest Rd,**
Lab Number : **02634527** **Tested** : 13 May 2024 **Stouffville, ON**
Unique Number : 5775680 **Diagnosed** : 13 May 2024 - Kevin Marson **CA L4A 2G8**
Test Package : MOB 1 (Additional Tests: KV40, VI) **Contact: Shannon Abbott**
sabbott@gipi.com

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.