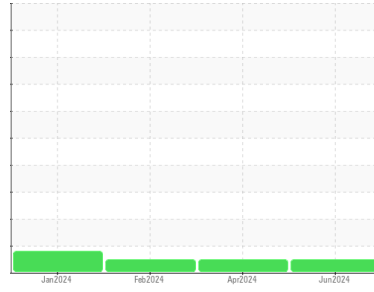




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

DR193

Component

Diesel Engine

Fluid

PETRO CANADA DURON UHP 5W40 (--- LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

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			PC0065478	PC0071594	PC0082663
Sample Date	Client Info			08 Jun 2024	12 Apr 2024	05 Feb 2024
Machine Age	hrs	Client Info		1043	778	515
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			Changed	Changed	Changed
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	NEG

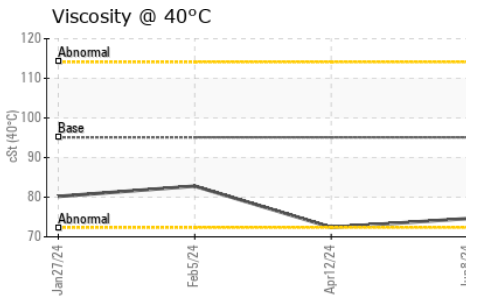
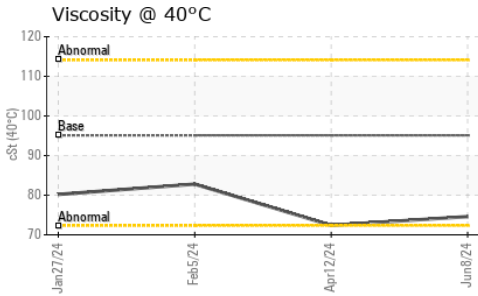
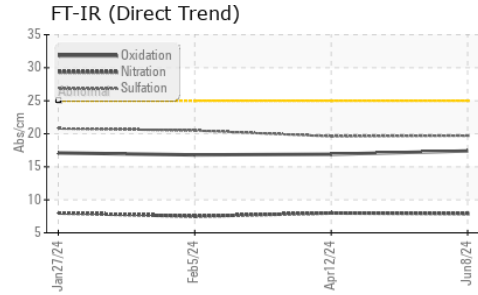
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	5	6	12
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>4	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<1	1	4
Lead	ppm	ASTM D5185(m)	>40	0	0	2
Copper	ppm	ASTM D5185(m)	>330	2	3	8
Tin	ppm	ASTM D5185(m)	>15	<1	<1	2
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)	65	46	46	70
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	65	55	53	62
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1160	1043	943	542
Calcium	ppm	ASTM D5185(m)	820	826	893	1546
Phosphorus	ppm	ASTM D5185(m)	1160	1080	903	976
Zinc	ppm	ASTM D5185(m)	1260	1173	1079	1164
Sulfur	ppm	ASTM D5185(m)	3000	2804	2496	2974
Lithium	ppm	ASTM D5185(m)		<1	<1	1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	5	8	22
Sodium	ppm	ASTM D5185(m)		4	3	3
Potassium	ppm	ASTM D5185(m)	>20	0	<1	2

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	7.9	8.0	7.5
Sulfation	Abs./1mm	ASTM D7415*	>30	19.7	19.6	20.5

OIL ANALYSIS REPORT

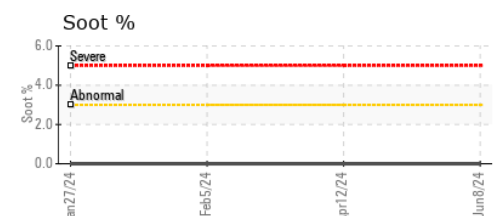
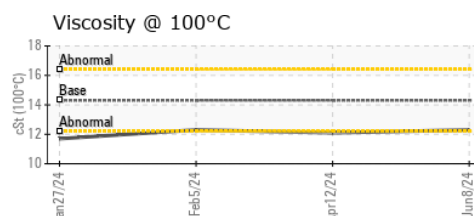
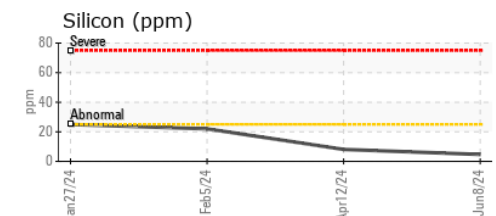
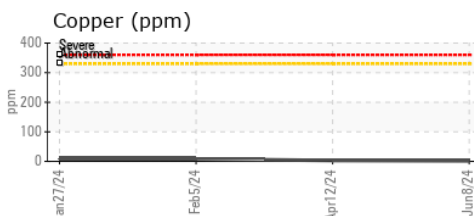
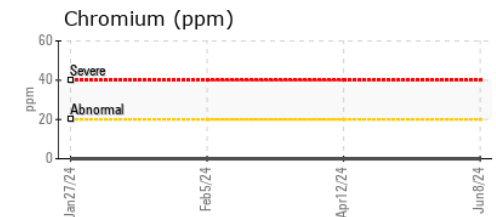
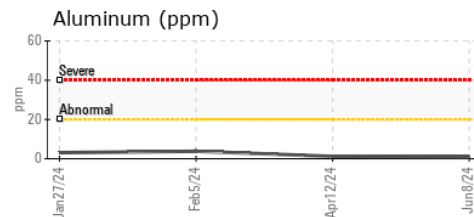
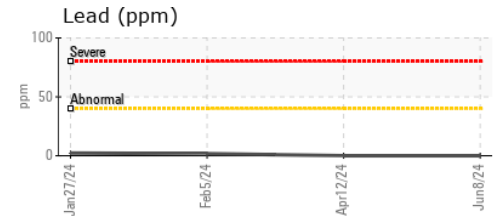
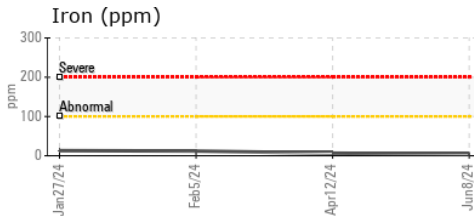


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	17.4	16.9	16.8

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	VLITE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
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)	95.1	74.6	72.4	82.8
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	12.3	12.1	12.3
Viscosity Index (VI)	Scale	ASTM D2270*	169	163	164	144

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0065478
Lab Number : **02648028**
Unique Number : 5813580
Test Package : MOB 1 (Additional Tests: KV40, VI, Visual)

Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations
 151 Ram Forest Rd,
 Stouffville, ON
 CA L4A 2G8
 Contact: Shannon Abbott
 sabbott@gipi.com
 T: (905)750-5900
 F:

*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.*