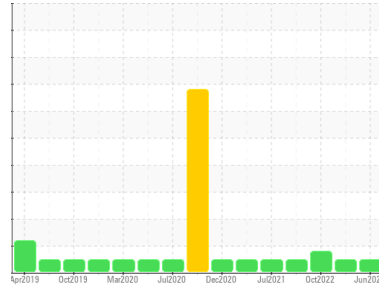


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
DR166

Component
Diesel Engine

Fluid
PETRO CANADA DURON UHP 5W40 (42 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			PC0078073	PC0075743	PC0065663
Sample Date	Client Info			26 Jun 2023	04 May 2023	17 Oct 2022
Machine Age	hrs	Client Info		16100	15865	15661
Oil Age	hrs	Client Info		250	250	0
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	<1.0	1.4
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	34	13	8
Chromium	ppm	ASTM D5185(m)	>20	2	<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	0
Aluminum	ppm	ASTM D5185(m)	>20	2	2	2
Lead	ppm	ASTM D5185(m)	>40	2	1	<1
Copper	ppm	ASTM D5185(m)	>330	12	7	5
Tin	ppm	ASTM D5185(m)	>15	<1	<1	<1
Antimony	ppm	ASTM D5185(m)		<1	<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

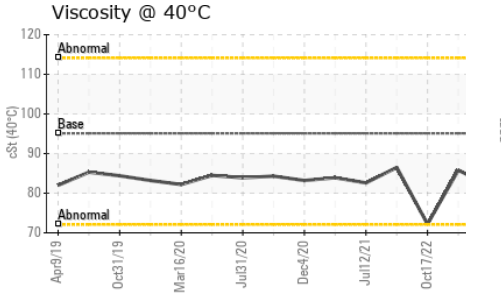
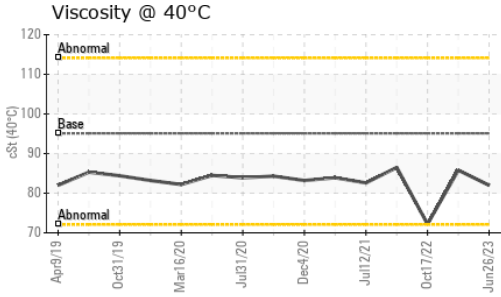
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	65	30	49	52
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	65	52	58	40
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1160	1026	1065	493
Calcium	ppm	ASTM D5185(m)	820	783	908	1686
Phosphorus	ppm	ASTM D5185(m)	1160	992	1075	965
Zinc	ppm	ASTM D5185(m)	1260	1115	1177	1042
Sulfur	ppm	ASTM D5185(m)	3000	2567	2865	2488
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

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

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.4	0.2	0
Nitration	Abs/cm	ASTM D7624*	>20	9.2	8.6	6.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.2	20.8	23.7

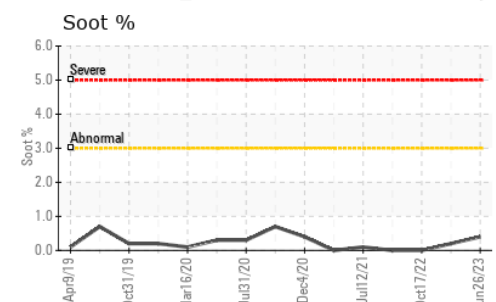
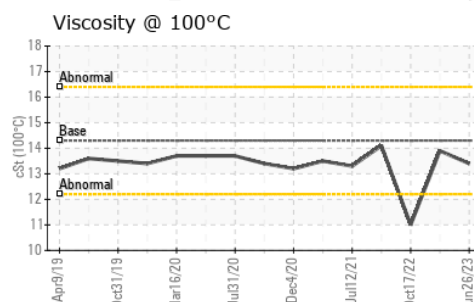
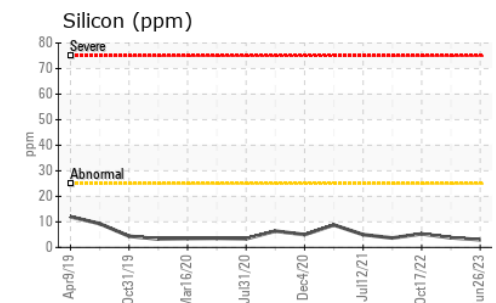
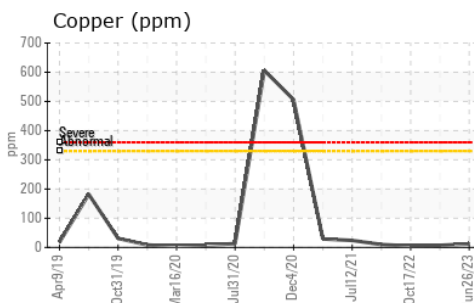
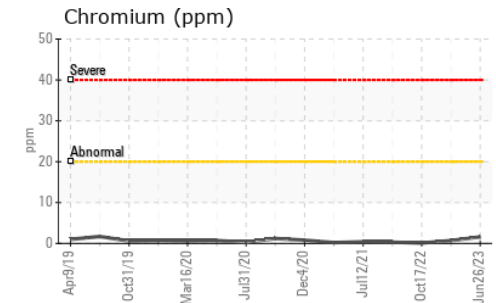
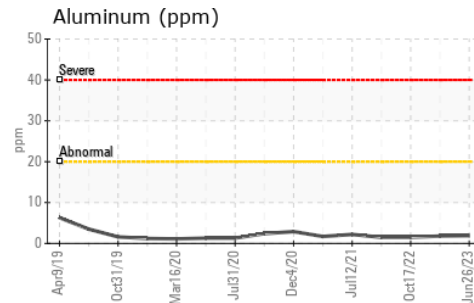
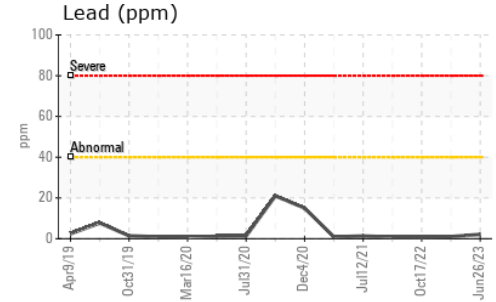
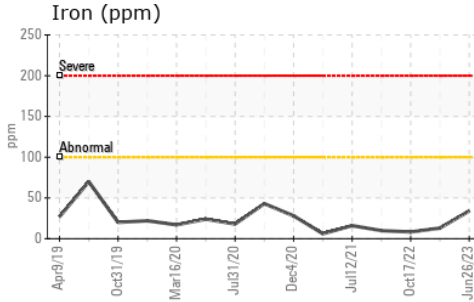
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.6	18.5	21.0

OIL ANALYSIS REPORT



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)	95.1	82.0	85.8	▲ 72.2
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	13.4	13.9	▲ 11.0
Viscosity Index (VI)	Scale	ASTM D2270*	169	166	166	142

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations
Sample No. : PC0078073 **Received** : 25 Jul 2023 151 Ram Forest Rd,
Lab Number : **02571849** **Diagnosed** : 25 Jul 2023 Stouffville, ON
Unique Number : 5616900 **Diagnostician** : Wes Davis 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.

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 F: