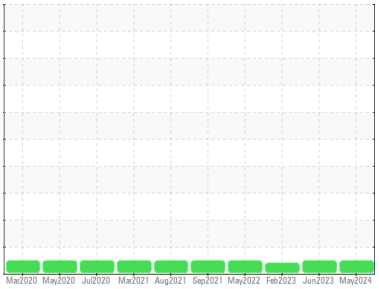
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
OR642
Component
Diesel Engine
Fluid
PETRO CANADA DURON UHP 5W40 (23 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		**PC0088293**	PC0075767	PC0072023
Sample Date		Client Info		**01 May 2024**	19 Jun 2023	21 Feb 2023
Machine Age	hrs	Client Info		**17126**	16005	15000
Oil Age	hrs	Client Info		**0**	500	0
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**NORMAL**	NORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>2.1	**<1.0**	<1.0	1.1
Water		WC Method	>0.21	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	0.0

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>51	**22**	14	4
Chromium	ppm	ASTM D5185(m)	>11	**<1**	<1	0
Nickel	ppm	ASTM D5185(m)	>5	**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)	>31	**2**	<1	<1
Lead	ppm	ASTM D5185(m)	>26	**0**	0	0
Copper	ppm	ASTM D5185(m)	>26	**<1**	<1	0
Tin	ppm	ASTM D5185(m)	>4	**0**	0	0
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

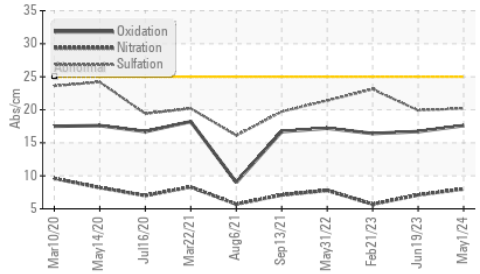
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	65	**45**	96	166
Barium	ppm	ASTM D5185(m)	0	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	65	**56**	33	6
Manganese	ppm	ASTM D5185(m)	0	**<1**	<1	0
Magnesium	ppm	ASTM D5185(m)	1160	**1065**	590	118
Calcium	ppm	ASTM D5185(m)	820	**844**	1445	2062
Phosphorus	ppm	ASTM D5185(m)	1160	**954**	1024	1037
Zinc	ppm	ASTM D5185(m)	1260	**1170**	1144	1087
Sulfur	ppm	ASTM D5185(m)	3000	**2691**	2883	3012
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>22	**2**	3	4
Sodium	ppm	ASTM D5185(m)	>31	**5**	4	2
Potassium	ppm	ASTM D5185(m)	>20	**<1**	2	6

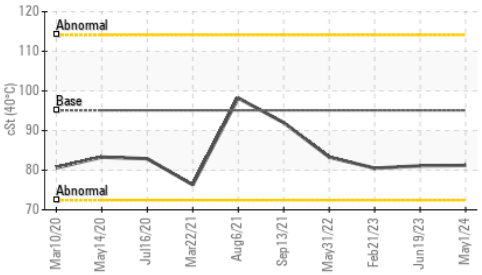
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.3**	0.1	0
Nitration	Abs/cm	ASTM D7624*	>20	**8.0**	7.1	5.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	**20.2**	19.9	23.1

OIL ANALYSIS REPORT

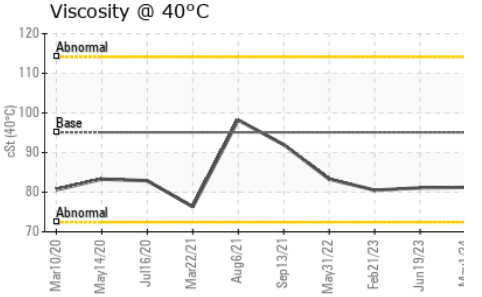
FT-IR (Direct Trend)



Viscosity @ 40°C



Viscosity @ 40°C



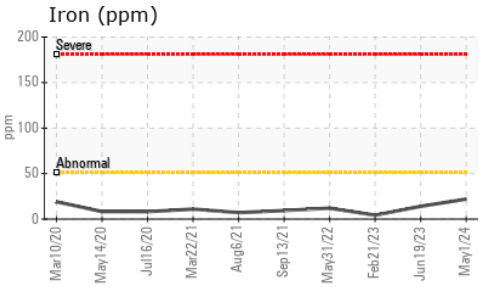
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**17.6**	16.7	16.4

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.21	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

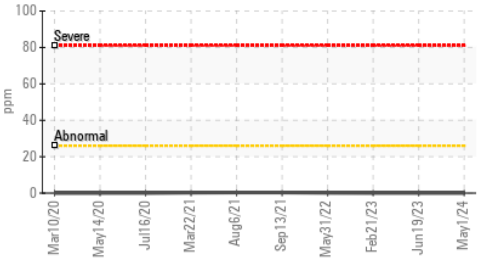
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	**81.2**	81.1	80.5
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	**13.3**	12.6	▲ 11.8
Viscosity Index (VI)	Scale	ASTM D2270*	169	**166**	153	139

GRAPHS

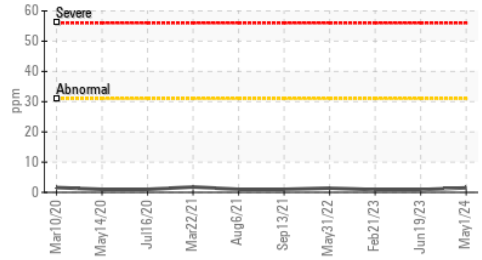
Iron (ppm)



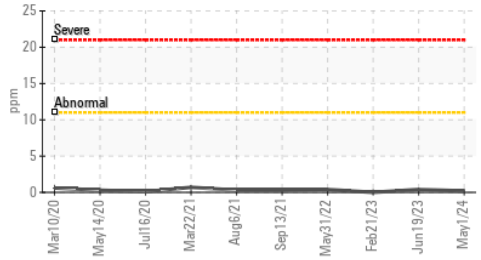
Lead (ppm)



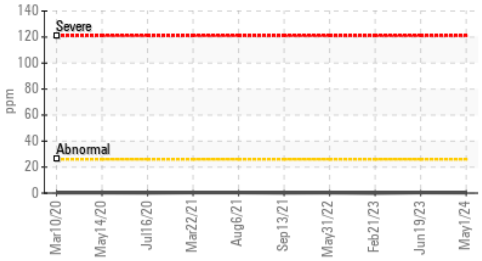
Aluminum (ppm)



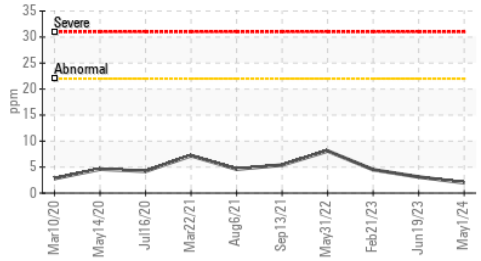
Chromium (ppm)



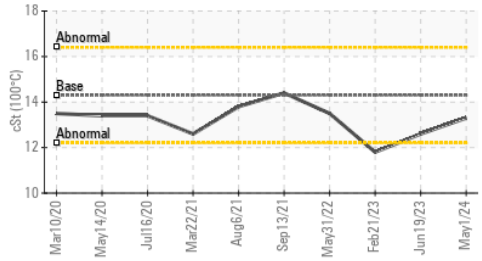
Copper (ppm)



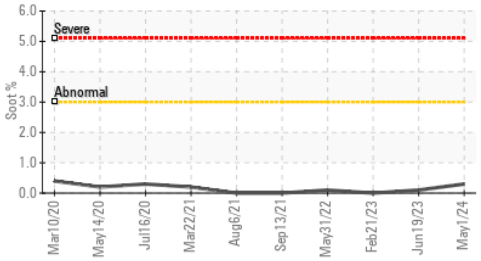
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0088293
Lab Number : 02634528
Unique Number : 5775681
Test Package : MOB 1 (Additional Tests: KV40, VI)

Received : 10 May 2024
Tested : 13 May 2024
Diagnosed : 13 May 2024 - Wes Davis

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.

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: