

Machine Id
DR182
Component
Diesel Engine
Fluid
PETRO CANADA DURON UHP 5W40 (40 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0082692	PC0078306	PC0078389
Sample Date		Client Info		21 Mar 2024	02 Mar 2024	20 Jan 2024
Machine Age	hrs	Client Info		9380	9287	9010
Oil Age	hrs	Client Info		0	0	250
Filter Age	hrs	Client Info		0	0	250
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	11	7	6
Chromium	ppm	ASTM D5185(m)	>20	2	0	0
Nickel	ppm	ASTM D5185(m)	>4	<1	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	2	2
Lead	ppm	ASTM D5185(m)	>40	0	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<1	2	2
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

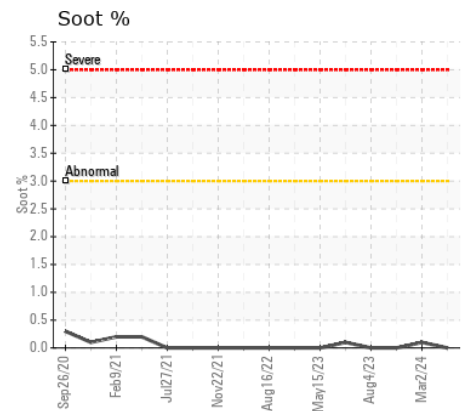
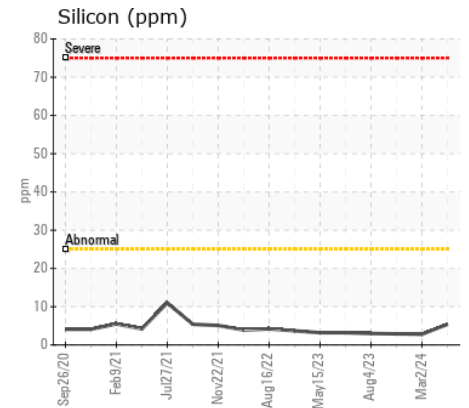
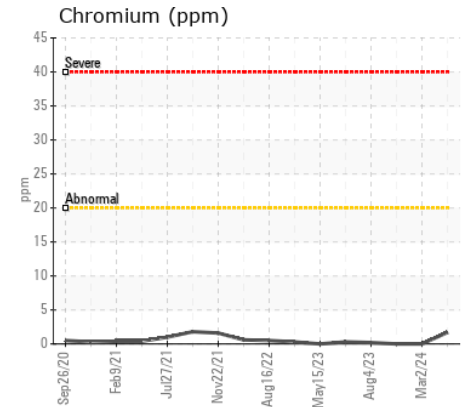
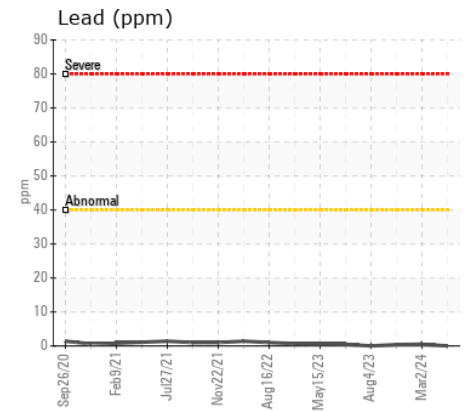
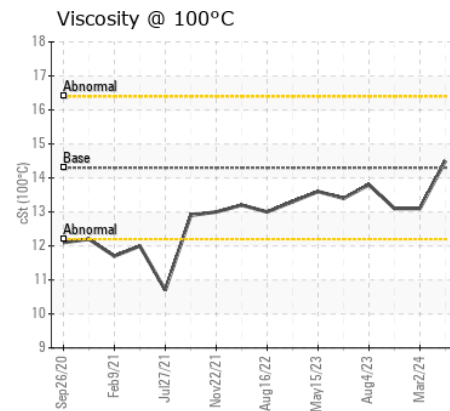
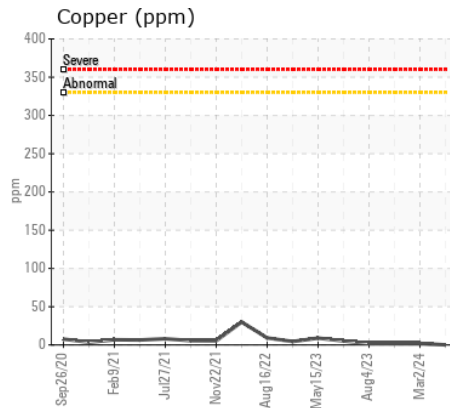
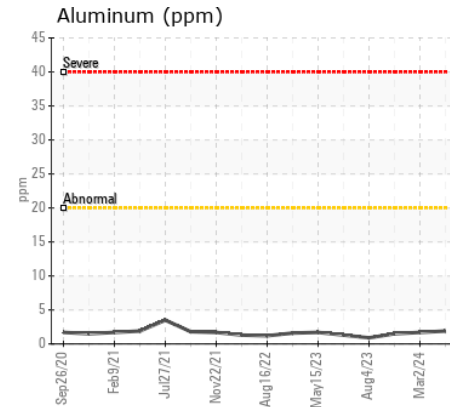
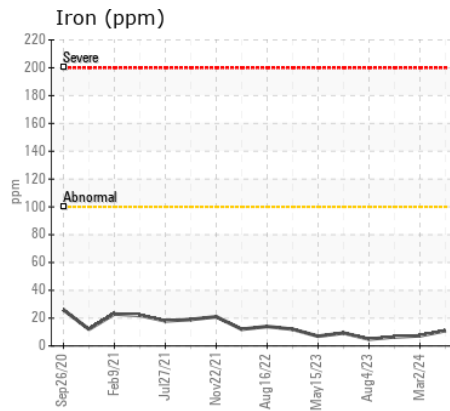
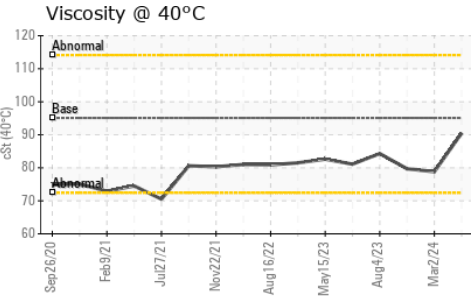
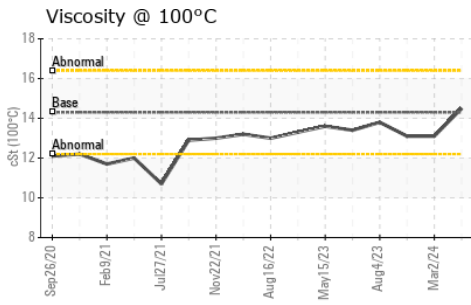
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	5	3	3
Potassium	ppm	ASTM D5185(m)	>20	0	<1	1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0	0.1	0
Nitration	Abs/cm	ASTM D7624*	>20	11.0	8.8	8.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.1	20.2	20.0
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		4	3	3
Boron	ppm	ASTM D5185(m)	65	38	36	35
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	65	52	55	57
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	1160	1029	1087	1066
Calcium	ppm	ASTM D5185(m)	820	789	807	818
Phosphorus	ppm	ASTM D5185(m)	1160	887	997	995
Zinc	ppm	ASTM D5185(m)	1260	1106	1156	1144
Sulfur	ppm	ASTM D5185(m)	3000	2431	2897	2848
Oxidation	Abs/.1mm	ASTM D7414*	>25	23.4	18.5	18.4
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	90.5	78.8	79.7
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	14.5	13.1	13.1
Viscosity Index (VI)	Scale	ASTM D2270*	169	166	168	166



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Sample No. : PC0082692

Lab Number : 02624913

Unique Number : 5750032

Test Package : MOB 1 (Additional Tests: KV40, VI)

Received : 27 Mar 2024

Tested : 27 Mar 2024

Diagnosed : 27 Mar 2024 - Wes Davis

Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations

151 Ram Forest Rd,

Stouffville, ON

CA L4A 2G8

Contact: Bill Acton

bacton@gipi.com

T:

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.