



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
OR640
Component
Diesel Engine
Fluid
PETRO CANADA DURON UHP 5W40 (13 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0082225	PC0071546	PC0064744
Sample Date		Client Info		21 Feb 2024	07 Feb 2023	28 Jul 2022
Machine Age	hrs	Client Info		9639	9165	8694
Oil Age	hrs	Client Info		0	500	0
Filter Age	hrs	Client Info		0	500	0
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	25	22	18
Chromium	ppm	ASTM D5185(m)	>20	10	4	4
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	4	5	3
Lead	ppm	ASTM D5185(m)	>40	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>330	5	3	3
Tin	ppm	ASTM D5185(m)	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

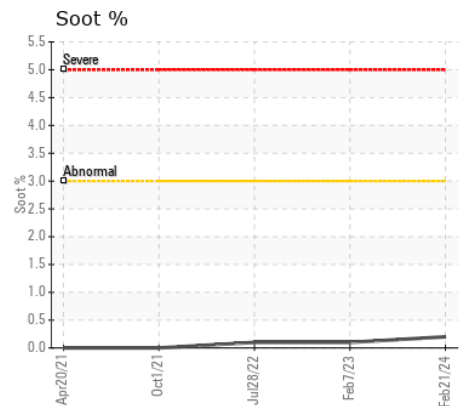
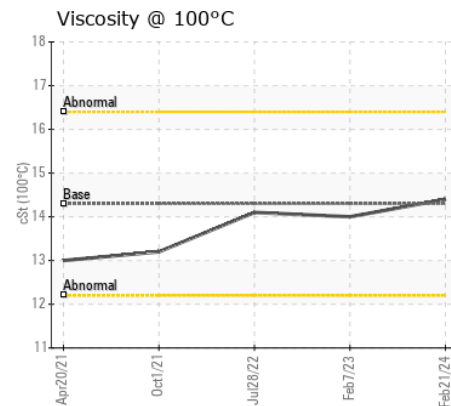
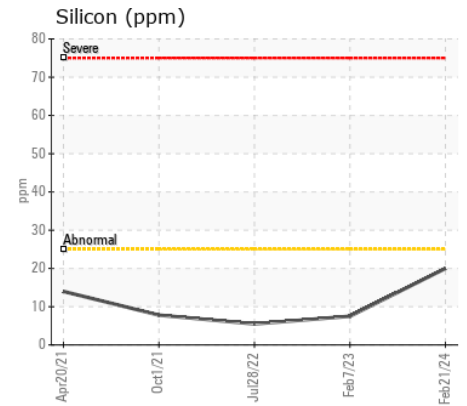
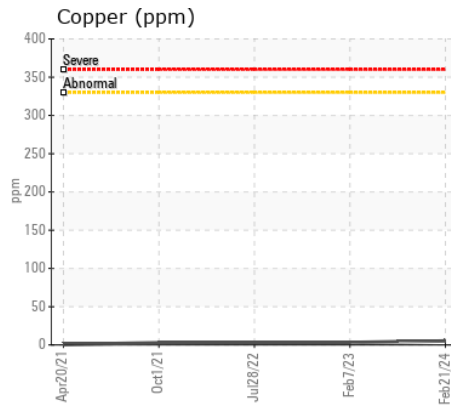
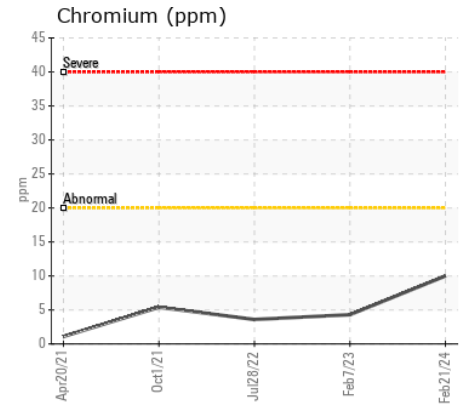
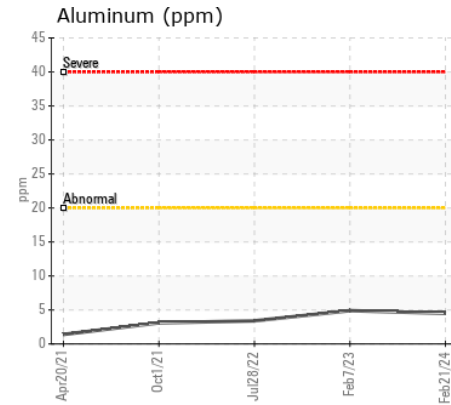
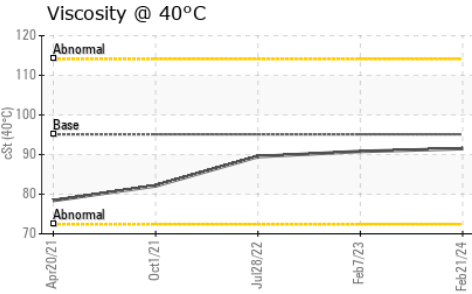
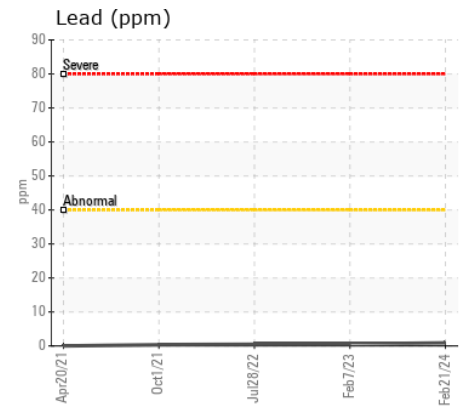
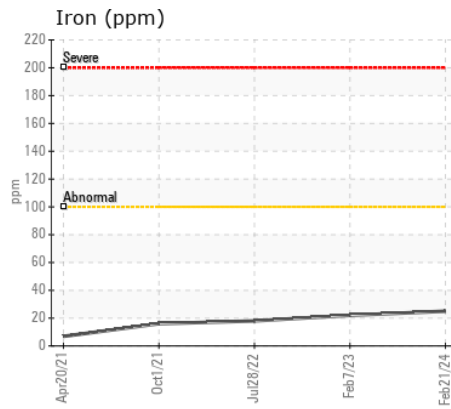
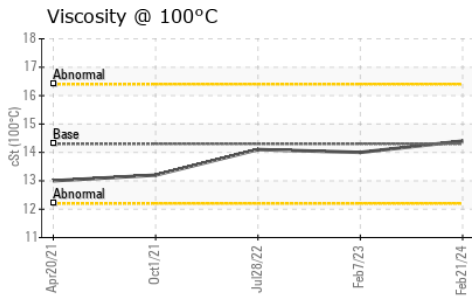
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	20	8	6
Potassium	ppm	ASTM D5185(m)	>20	<1	0	0
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	0.2	0.1	0.1
Nitration	Abs/cm	ASTM D7624*	>20	12.1	12.5	12.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.0	25.8	22.8
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)		6	5	6
Boron	ppm	ASTM D5185(m)	65	40	38	38
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	65	63	62	59
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	1160	1171	1163	1170
Calcium	ppm	ASTM D5185(m)	820	908	915	896
Phosphorus	ppm	ASTM D5185(m)	1160	1026	1093	1036
Zinc	ppm	ASTM D5185(m)	1260	1227	1231	1263
Sulfur	ppm	ASTM D5185(m)	3000	2818	2728	2774
Oxidation	Abs/.1mm	ASTM D7414*	>25	22.9	25.0	23.1
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	91.5	90.8	89.5
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	14.4	14.0	14.1
Viscosity Index (VI)	Scale	ASTM D2270*	169	163	158	162



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0082225 **Received** : 01 Mar 2024
Lab Number : 02619158 **Tested** : 01 Mar 2024
Unique Number : 5736268 **Diagnosed** : 01 Mar 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: KV40, VI)

Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations
 151 Ram Forest Rd,
 Stouffville, ON
 CA L4A 2G8
 Contact: Bill Acton
 bacton@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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