



Machine Id
3373M
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (8 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0041810	GFL0041832	GFL0041835
Sample Date		Client Info		03 Aug 2023	06 Apr 2022	24 Dec 2021
Machine Age	hrs	Client Info		600	600	0
Oil Age	hrs	Client Info		600	0	250
Filter Age	hrs	Client Info		600	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 D5185m	>120	3	24	27
Chromium	ppm	ASTM D5185m	>20	0	<1	2
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>20	1	2	8
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>330	0	4	2
Tin	ppm	ASTM D5185m	>15	<1	1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

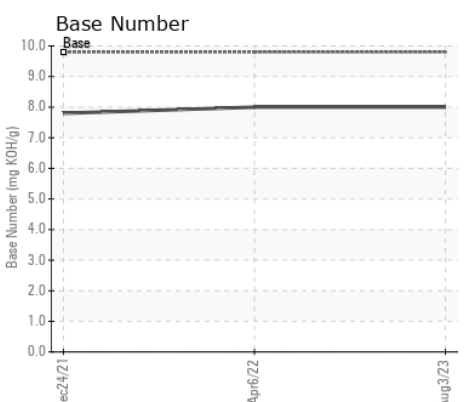
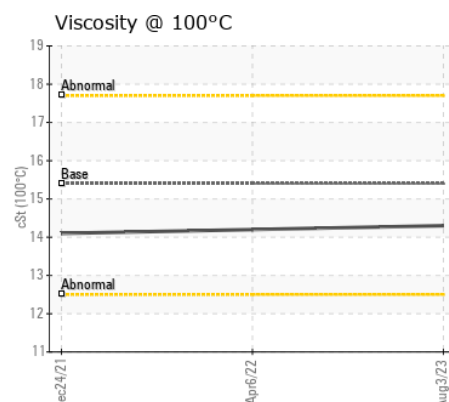
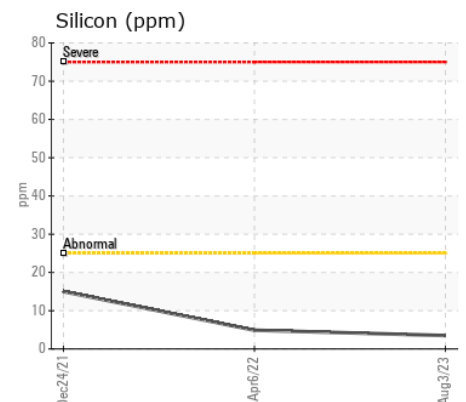
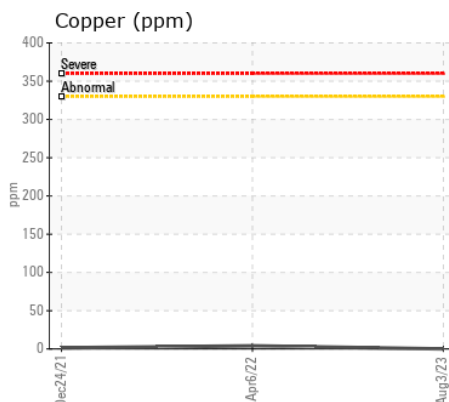
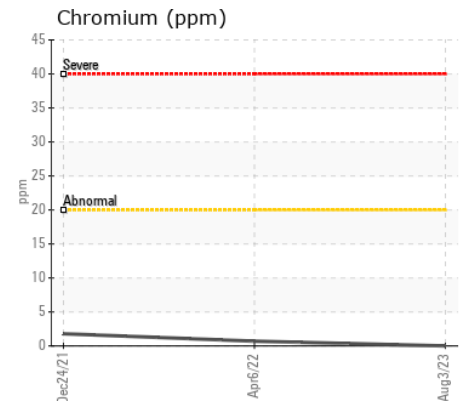
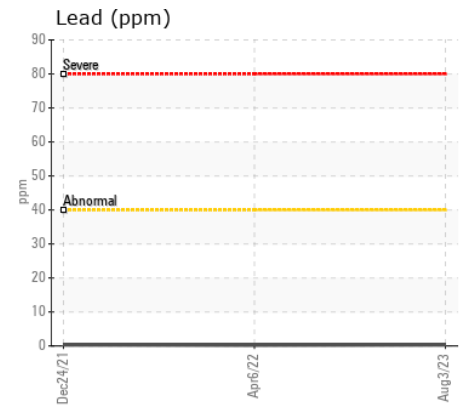
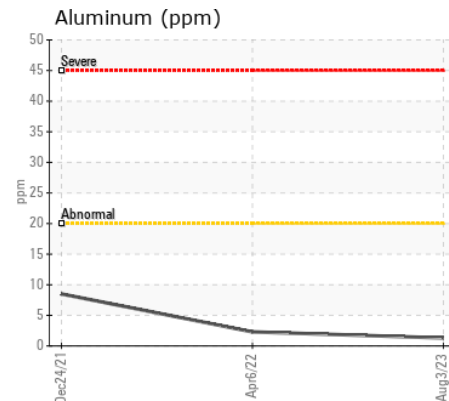
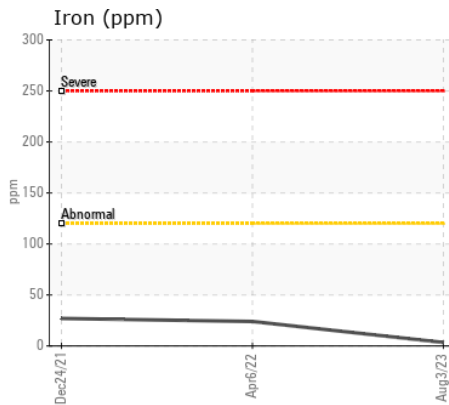
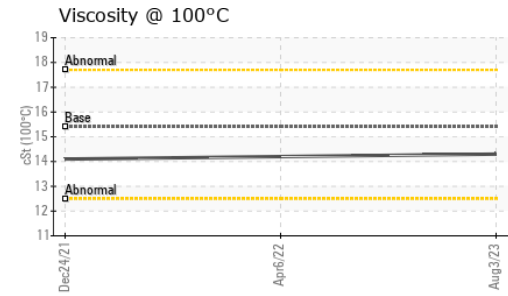
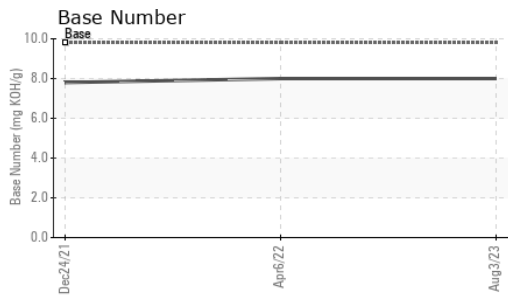
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	5	15
Potassium	ppm	ASTM D5185m	>20	2	0	<1
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.5	1.5	0.6
Nitration	Abs/cm	*ASTM D7624	>20	6.7	10.8	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.5	23.5	20.6
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

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	4	4
Boron	ppm	ASTM D5185m	0	2	2	5
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	27	59	56
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	444	954	892
Calcium	ppm	ASTM D5185m	1070	1677	1162	1034
Phosphorus	ppm	ASTM D5185m	1150	985	978	893
Zinc	ppm	ASTM D5185m	1270	1149	1212	1143
Sulfur	ppm	ASTM D5185m	2060	3316	2223	2313
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.4	17.6	16.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8	8	7.8
Visc @ 100°C	cSt	ASTM D445	15.4	14.3	14.2	14.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0041810 **Received** : 16 Jan 2024
Lab Number : 06060767 **Diagnosed** : 17 Jan 2024
Unique Number : 10832149 **Diagnostician** : Jonathan Hester
Test Package : MOB1+

GFL Environmental - 461 - Smith Hauling
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 Brimley, MI
 US 49715
 Contact: Jim Smith
 jim.smith@gflenv.com
 T: (906)635-3380
 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)