



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Area
(YA144044)
Machine Id
3803C
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (8 GAL)

RECOMMENDATION

The oil is near the end of its useful service life, recommend schedule an oil change. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0115944	GFL0074446	GFL0080594
Sample Date		Client Info		18 Jun 2024	05 Sep 2023	20 Jul 2023
Machine Age	hrs	Client Info		47607	47607	47607
Oil Age	hrs	Client Info		0	47607	47607
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Chngd	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

The lead level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	44	16	12
Chromium	ppm	ASTM D5185m	>5	2	2	1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	<1
Aluminum	ppm	ASTM D5185m	>20	6	2	2
Lead	ppm	ASTM D5185m	>150	▲ 156	12	7
Copper	ppm	ASTM D5185m	>90	37	2	1
Tin	ppm	ASTM D5185m	>5	2	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

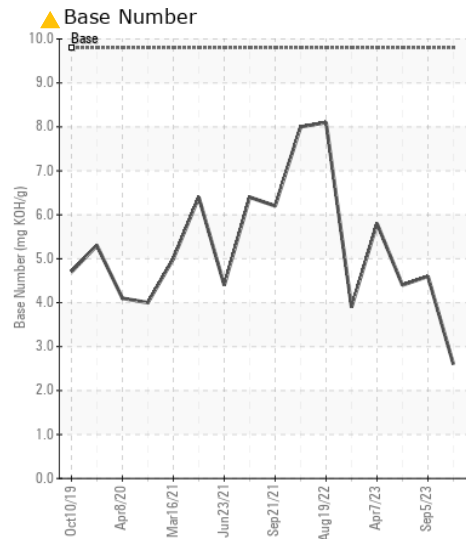
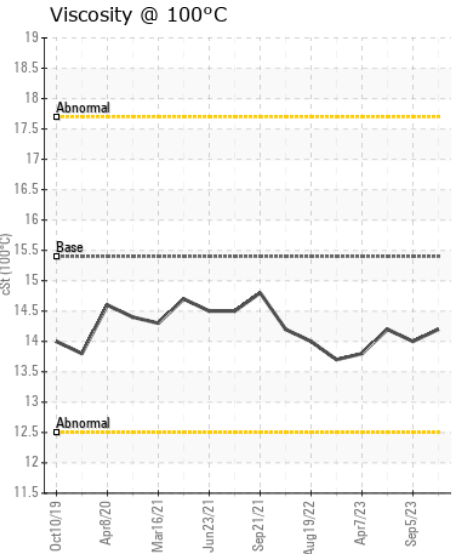
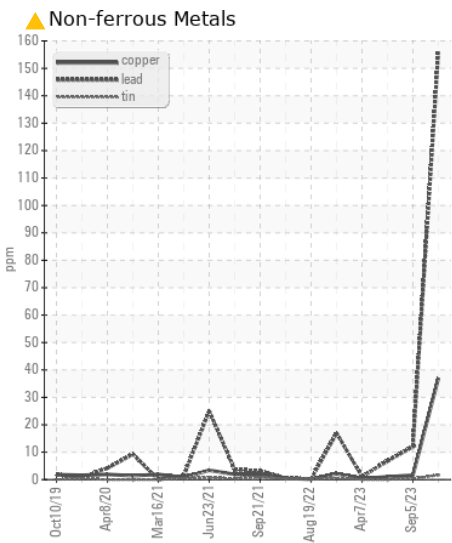
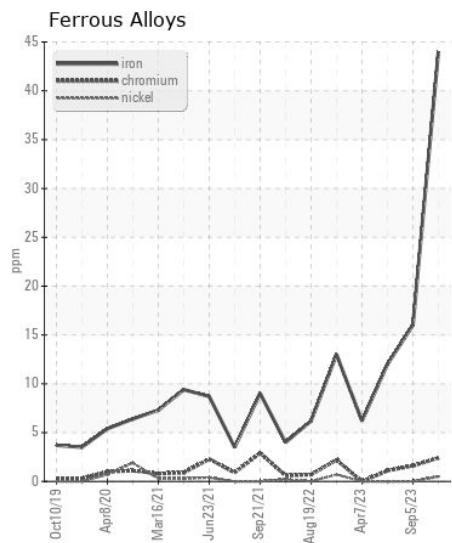
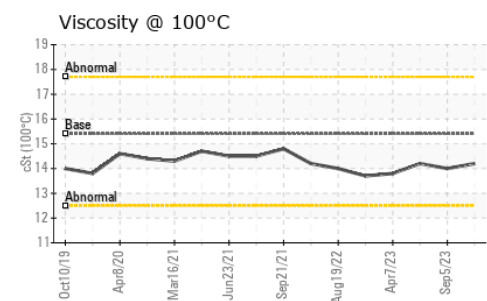
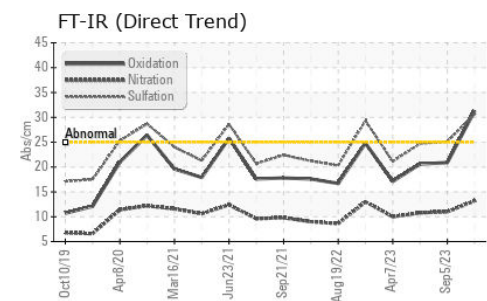
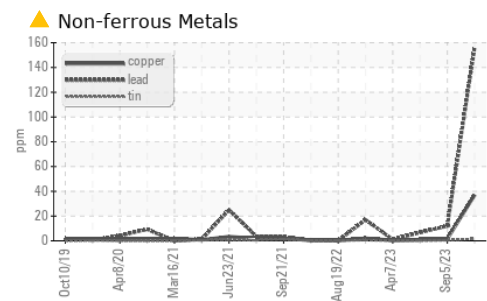
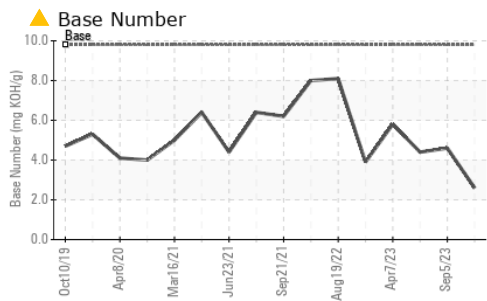
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>35	10	8	7
Potassium	ppm	ASTM D5185m	>20	3	9	<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	>7.5	0.1	0	0
Nitration	Abs/cm	*ASTM D7624	>20	13.2	11.0	10.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	30.6	25.1	24.7
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 level is low. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		9	7	6
Boron	ppm	ASTM D5185m	0	17	6	8
Barium	ppm	ASTM D5185m	0	0	2	0
Molybdenum	ppm	ASTM D5185m	60	58	58	59
Manganese	ppm	ASTM D5185m	0	2	<1	<1
Magnesium	ppm	ASTM D5185m	1010	757	757	717
Calcium	ppm	ASTM D5185m	1070	1716	1525	1729
Phosphorus	ppm	ASTM D5185m	1150	970	873	891
Zinc	ppm	ASTM D5185m	1270	1204	1078	1153
Sulfur	ppm	ASTM D5185m	2060	2878	3063	3330
Oxidation	Abs/.1mm	*ASTM D7414	>25	31.3	20.9	20.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	▲ 2.6	4.6	4.4
Visc @ 100°C	cSt	ASTM D445	15.4	14.2	14.0	14.2



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0115944
Lab Number : 06214466
Unique Number : 11087330
Test Package : FLEET
Received : 19 Jun 2024
Tested : 20 Jun 2024
Diagnosed : 21 Jun 2024 - Don Baldrige

GFL Environmental - 018 - Fayetteville
 4621 Marracco Drive
 Hope Mills, NC
 US 28348
 Contact: Robert Carter
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 T: (910)596-1170
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Certificate L2367
 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)