



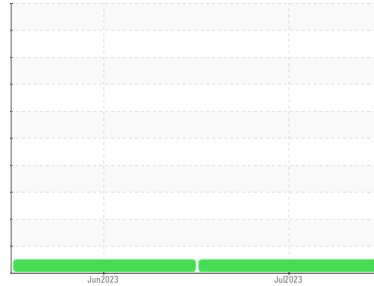
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
{UNASSIGNED}
 Machine Id
933041
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (8 GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		GFL0086127	GFL0083231	---
Sample Date	Client Info		06 Jul 2023	15 Jun 2023	---
Machine Age	hrs	Client Info	391	216	---
Oil Age	hrs	Client Info	391	216	---
Oil Changed	Client Info		Not Chngd	Not Chngd	---
Sample Status			NORMAL	NORMAL	---

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >50	63	53	---
Chromium	ppm	ASTM D5185m >4	1	<1	---
Nickel	ppm	ASTM D5185m >2	1	1	---
Titanium	ppm	ASTM D5185m	0	0	---
Silver	ppm	ASTM D5185m >3	<1	0	---
Aluminum	ppm	ASTM D5185m >9	20	9	---
Lead	ppm	ASTM D5185m >30	1	1	---
Copper	ppm	ASTM D5185m >35	18	18	---
Tin	ppm	ASTM D5185m >4	1	<1	---
Vanadium	ppm	ASTM D5185m	0	0	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m 0	18	27	---
Barium	ppm	ASTM D5185m 0	2	5	---
Molybdenum	ppm	ASTM D5185m 60	52	50	---
Manganese	ppm	ASTM D5185m 0	13	12	---
Magnesium	ppm	ASTM D5185m 1010	785	693	---
Calcium	ppm	ASTM D5185m 1070	990	939	---
Phosphorus	ppm	ASTM D5185m 1150	715	701	---
Zinc	ppm	ASTM D5185m 1270	929	866	---
Sulfur	ppm	ASTM D5185m 2060	2831	2520	---

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >+100	35	32	---
Sodium	ppm	ASTM D5185m	4	4	---
Potassium	ppm	ASTM D5185m >20	58	32	---

INFRA-RED

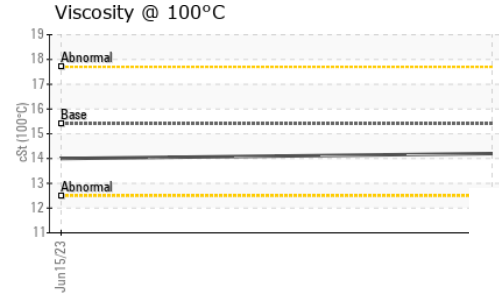
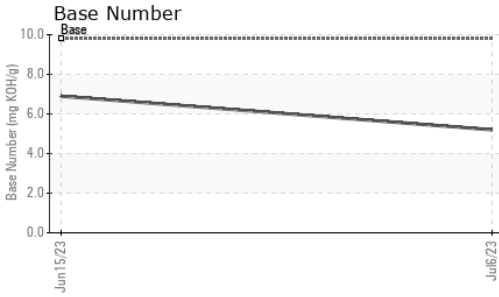
	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844	0.1	0.1	---
Nitration	Abs/cm	*ASTM D7624 >20	11.4	10.0	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	21.8	20.7	---

FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414 >25	20.4	18.8	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	5.2	6.9	---



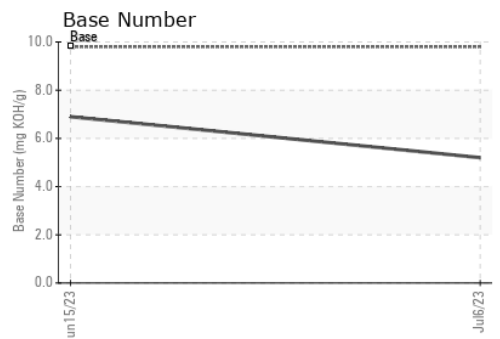
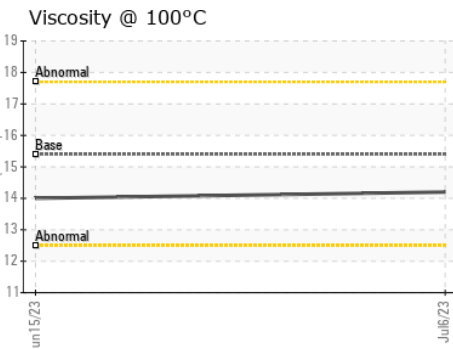
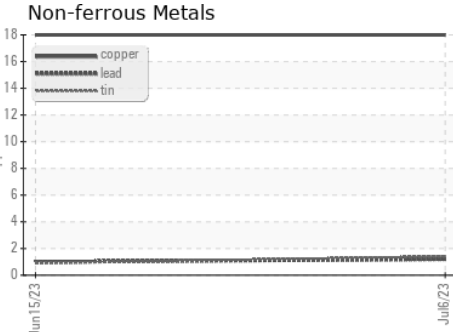
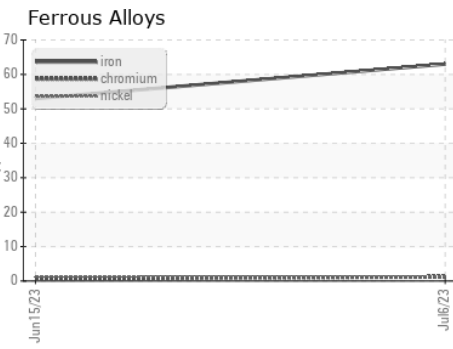
OIL ANALYSIS REPORT



PARAMETER	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history 1	history 2	
Visc @ 100°C	cSt	ASTM D445	15.4	14.2	14.0	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0086127 **Received** : 10 Jul 2023
Lab Number : **05893201** **Diagnosed** : 11 Jul 2023
Unique Number : 10549011 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 010 - Stockbridge
 1280 Rum Creek Parkway
 Stockbridge, GA
 US 30281
 Contact: JOSHUA TINKER
 joshuatinker@gflenv.com

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)