FLEET LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	SEVERE

Machine Id
822052 PETERBILT 320
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

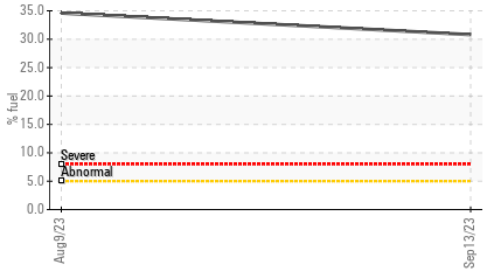
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

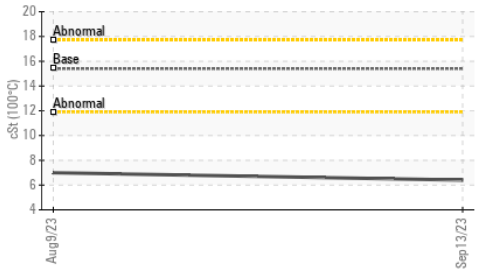
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0061457	GFL0061453	---
Sample Date		Client Info		13 Sep 2023	09 Aug 2023	---
Machine Age	hrs	Client Info		13410	13244	---
Oil Age	hrs	Client Info		600	600	---
Filter Age	hrs	Client Info		600	600	---
Oil Changed		Client Info		Not Changd	Changed	---
Filter Changed		Client Info		Not Changd	Changed	---
Sample Status				SEVERE	SEVERE	---
Iron	ppm	ASTM D5185m	>110	17	28	---
Chromium	ppm	ASTM D5185m	>4	1	<1	---
Nickel	ppm	ASTM D5185m	>2	0	0	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>25	22	12	---
Lead	ppm	ASTM D5185m	>45	<1	<1	---
Copper	ppm	ASTM D5185m	>85	2	13	---
Tin	ppm	ASTM D5185m	>4	0	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>30	6	8	---
Potassium	ppm	ASTM D5185m	>20	76	46	---
Fuel	%	ASTM D3524	>5	30.8	34.6	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	12.3	10.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	18.8	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---
Sodium	ppm	ASTM D5185m		4	10	---
Boron	ppm	ASTM D5185m	0	2	6	---
Barium	ppm	ASTM D5185m	0	0	0	---
Molybdenum	ppm	ASTM D5185m	60	37	38	---
Manganese	ppm	ASTM D5185m	0	<1	<1	---
Magnesium	ppm	ASTM D5185m	1010	534	559	---
Calcium	ppm	ASTM D5185m	1070	680	791	---
Phosphorus	ppm	ASTM D5185m	1150	611	660	---
Zinc	ppm	ASTM D5185m	1270	753	816	---
Sulfur	ppm	ASTM D5185m	2060	2090	2430	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.7	16.8	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.9	5.9	---
Visc @ 100°C	cSt	ASTM D445	15.4	6.4	7	---

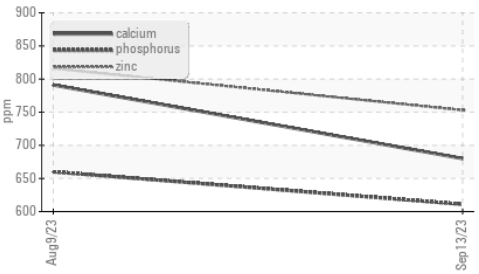
Fuel Dilution



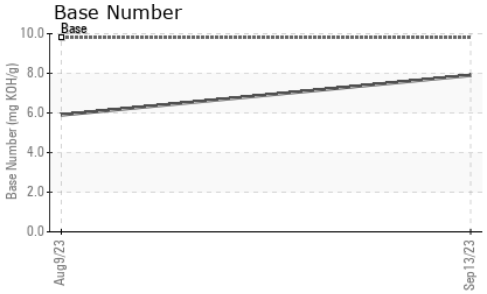
Viscosity @ 100°C



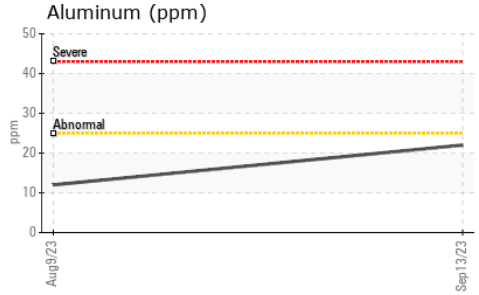
Additives



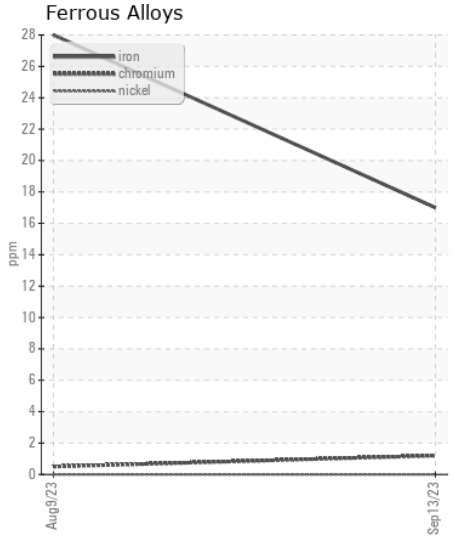
Base Number



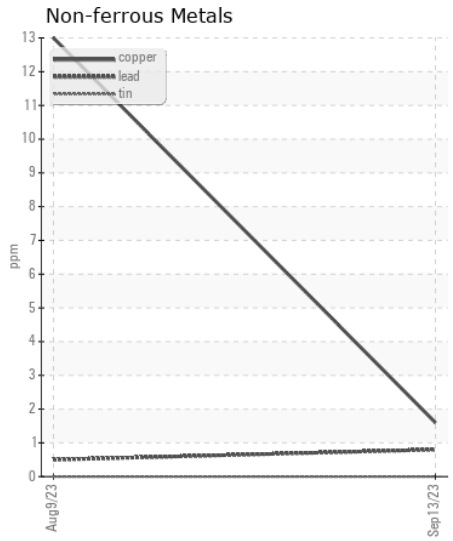
Aluminum (ppm)



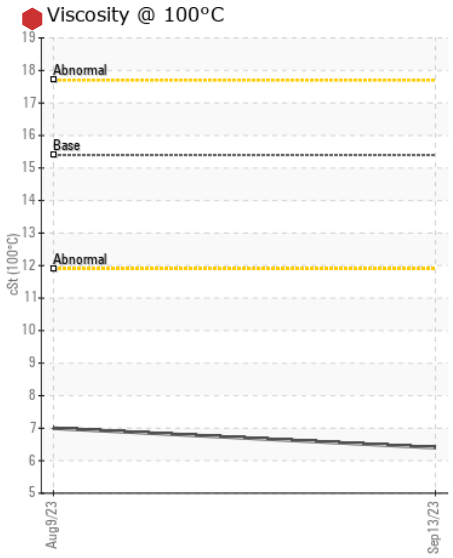
Ferrous Alloys



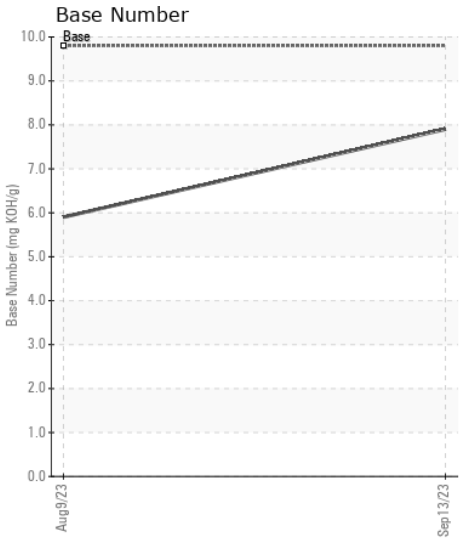
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0061457
Lab Number : 05955774
Unique Number : 10656987
Test Package : FLEET (Additional Tests: PercentFuel)

Received : 19 Sep 2023
Tested : 21 Sep 2023
Diagnosed : 21 Sep 2023 - Wes Davis

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)

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Report Id: GFL642 [WUSCAR] 05955774 (Generated: 02/13/2024 16:49:52) Rev: 1

Submitted By: BRITTANY FLINN