



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
10528

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (11 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0066900	GFL0074637	GFL0092462
Sample Date		Client Info		29 Jan 2024	13 Nov 2023	14 Sep 2023
Machine Age	hrs	Client Info		22563	49641	21566
Oil Age	hrs	Client Info		546	559	88
Filter Age	hrs	Client Info		546	559	88
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				ATTENTION	ATTENTION	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	30	10	5
Chromium	ppm	ASTM D5185m	>5	1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>15	4	2	<1
Lead	ppm	ASTM D5185m	>25	2	0	0
Copper	ppm	ASTM D5185m	>100	<1	0	0
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Sodium and/or potassium levels are high. Test for glycol is negative.

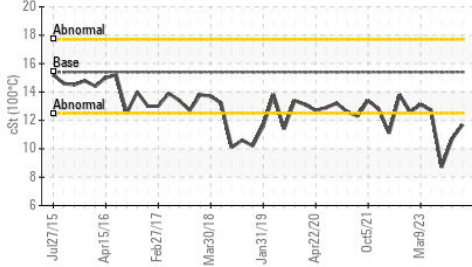
Silicon	ppm	ASTM D5185m	>25	16	3	3
Potassium	ppm	ASTM D5185m	>20	5	2	2
Fuel	%	ASTM D3524	>3.0	<1.0	<1.0	1.6
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.8	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	10.0	7.6	4.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.7	17.6	13.7
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

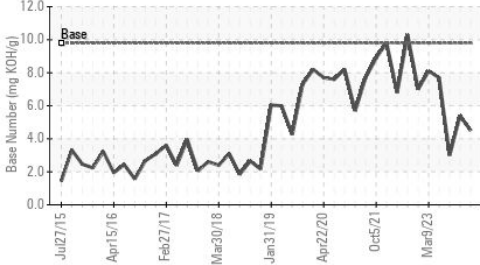
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		▲ 92	7	6
Boron	ppm	ASTM D5185m	0	9	5	<1
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	59	39	21
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	742	▲ 569	▲ 344
Calcium	ppm	ASTM D5185m	1070	896	▲ 649	▲ 410
Phosphorus	ppm	ASTM D5185m	1150	894	▲ 696	▲ 538
Zinc	ppm	ASTM D5185m	1270	1052	▲ 823	▲ 609
Sulfur	ppm	ASTM D5185m	2060	2388	1922	1713
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.6	13.2	6.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	4.5	5.4	▲ 3.0
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.7	▲ 10.7	▲ 8.7

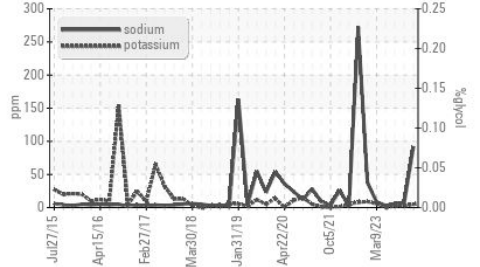
▲ Viscosity @ 100°C



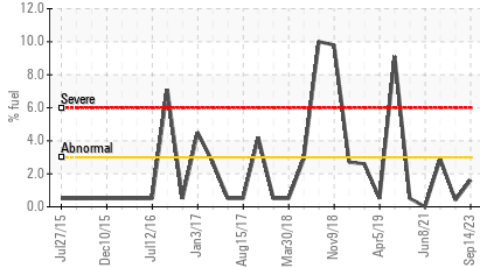
Base Number



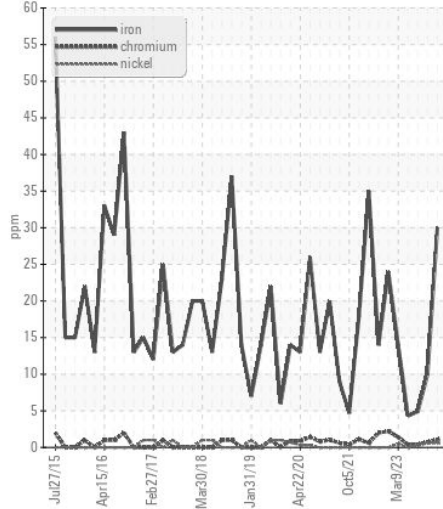
Glycol Contamination



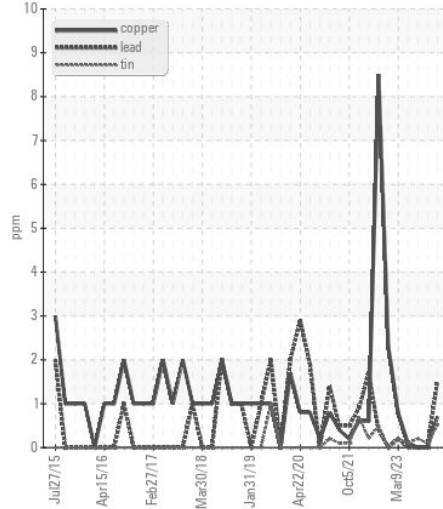
Fuel Dilution



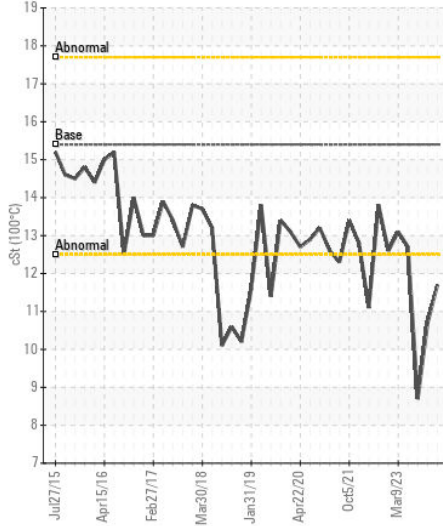
Ferrous Alloys



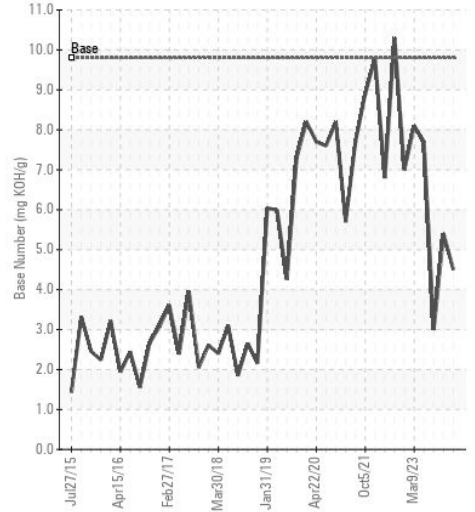
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0066900

Lab Number : 06075574

Unique Number : 10857665

Test Package : FLEET (Additional Tests: FuelDilution, Glycol)

Received : 31 Jan 2024

Tested : 01 Feb 2024

Diagnosed : 01 Feb 2024 - Jonathan Hester

GFL Environmental - 095 - Atlanta West

2699 Cochran Industrial Blvd

Douglasville, GA

US 30127-1332

Contact: Darrell Welch

darrell.welch@gflenv.com

T: (800)207-6618

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)