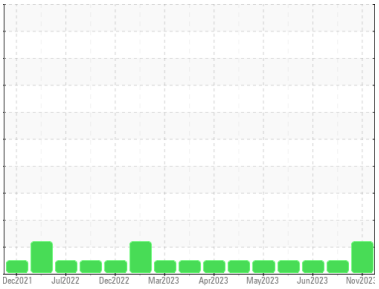
PROBLEM SUMMARY

Area
166
Machine Id
424057-19
Component
Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (--- GAL)

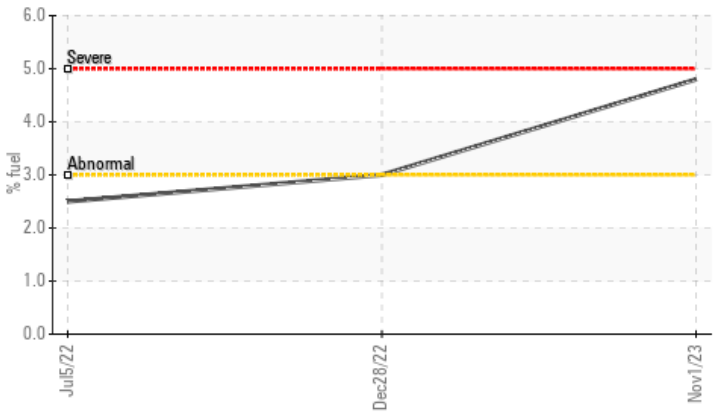
Sample Rating Trend



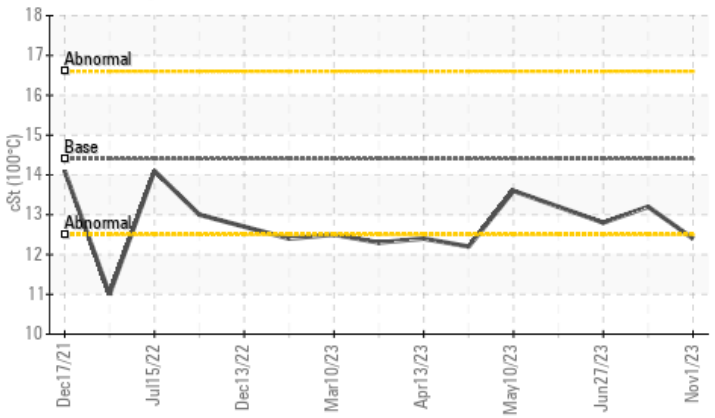
FUEL

COMPONENT CONDITION SUMMARY

▲ Fuel Dilution



▲ Viscosity @ 100°C



RECOMMENDATION

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.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	NORMAL	NORMAL
Fuel	%	ASTM D3524	>3.0	▲ **4.8**	<1.0	<1.0
Visc @ 100°C	cSt	ASTM D445	14.4	▲ **12.4**	13.2	12.8

Customer Id: GFL166
Sample No.: GFL0091240
Lab Number: 05998642
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

17 Aug 2023 Diag: Don Baldridge

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

27 Jun 2023 Diag: Don Baldridge

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

25 May 2023 Diag: Sean Felton

NORMAL

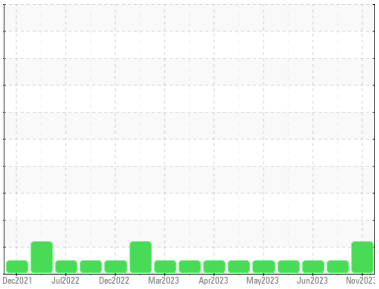
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Area
166
Machine Id
424057-19
Component
Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (--- GAL)

Sample Rating Trend



FUEL

DIAGNOSIS

Recommendation
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
There is a moderate 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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0091240**	GFL0087851	GFL0087802
Sample Date		Client Info		**01 Nov 2023**	17 Aug 2023	27 Jun 2023
Machine Age	hrs	Client Info		**21208**	453956	450974
Oil Age	hrs	Client Info		**200**	600	600
Oil Changed		Client Info		**Not Changd**	Not Changd	Changed
Sample Status				**ABNORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	**2**	2	4
Chromium	ppm	ASTM D5185m	>20	**<1**	0	<1
Nickel	ppm	ASTM D5185m	>5	**0**	0	0
Titanium	ppm	ASTM D5185m	>2	**0**	0	0
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**2**	1	0
Lead	ppm	ASTM D5185m	>40	**0**	0	<1
Copper	ppm	ASTM D5185m	>330	**1**	<1	2
Tin	ppm	ASTM D5185m	>15	**<1**	0	<1
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	151	**3**	0	4
Barium	ppm	ASTM D5185m	0.4	**0**	0	0
Molybdenum	ppm	ASTM D5185m	250	**58**	60	59
Manganese	ppm	ASTM D5185m		**0**	<1	<1
Magnesium	ppm	ASTM D5185m	0	**916**	1017	865
Calcium	ppm	ASTM D5185m	2046	**990**	1063	1018
Phosphorus	ppm	ASTM D5185m	1043	**982**	1046	947
Zinc	ppm	ASTM D5185m	943	**1211**	1259	1164
Sulfur	ppm	ASTM D5185m	5012	**2680**	3557	2929

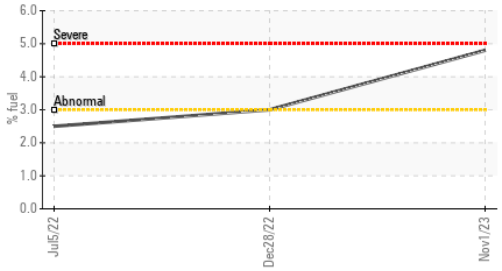
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**5**	3	4
Sodium	ppm	ASTM D5185m		**4**	3	3
Potassium	ppm	ASTM D5185m	>20	**0**	0	1
Fuel	%	ASTM D3524	>3.0	▲ **4.8**	<1.0	<1.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>4	**0.2**	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	**7.7**	5.8	7.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	**19.2**	17.7	19.7

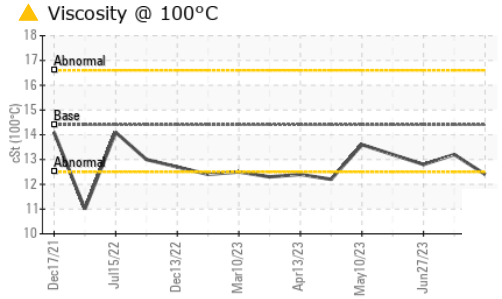
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**16.3**	13.7	17.0
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	**7.3**	8.2	7.4

OIL ANALYSIS REPORT

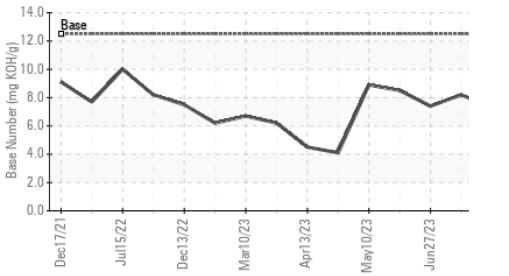
Fuel Dilution



Viscosity @ 100°C



Base Number

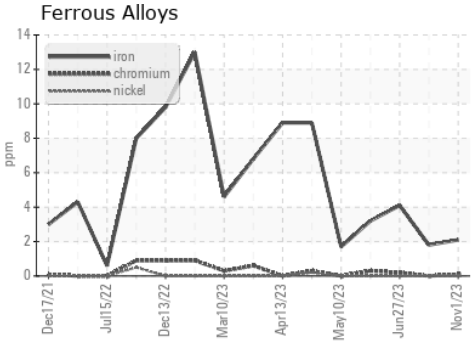


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

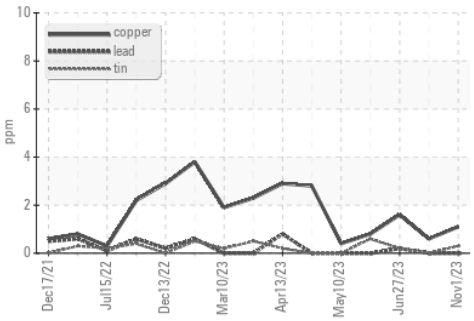
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	▲ **12.4**	13.2	12.8

GRAPHS

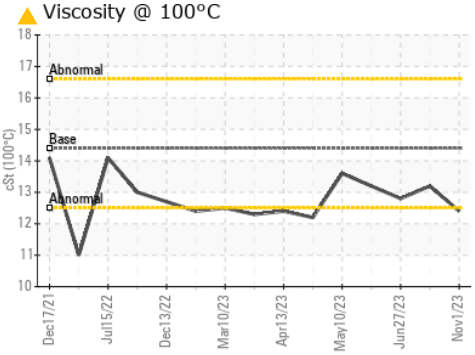
Ferrous Alloys



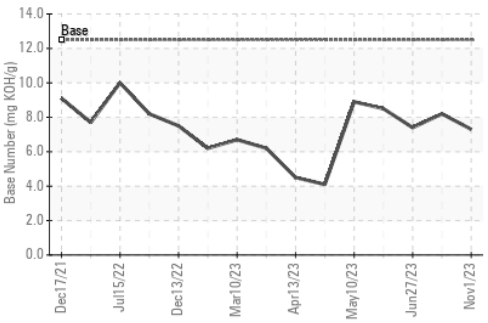
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0091240 **Received** : 06 Nov 2023
Lab Number : 05998642 **Diagnosed** : 07 Nov 2023
Unique Number : 10727002 **Diagnostician** : Wes Davis
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

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)

GFL Environmental - 166 - Phenix City
18 Old Brickyard Rd
Phenix City, AL
US 36869
Contact: DEAN PEACE JR
dean.peace@gflenv.com
T:
F:

Report Id: GFL166 [WUSCAR] 05998642 (Generated: 11/07/2023 18:42:17) Rev: 1

Submitted By: DARRIN WRIGHT