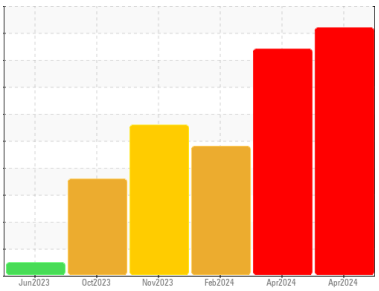
PROBLEM SUMMARY

Sample Rating Trend

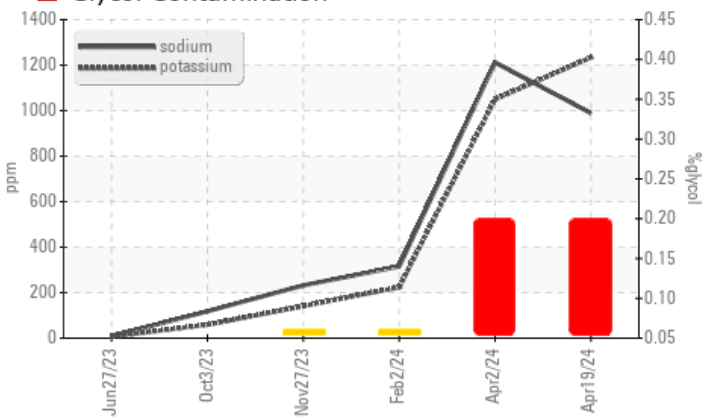


GLYCOL

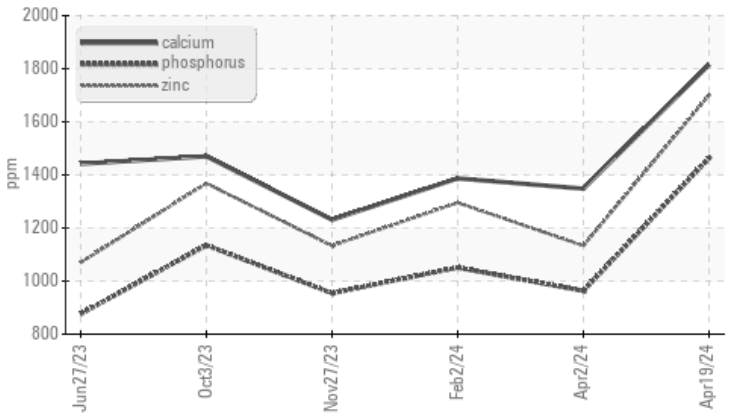
Machine Id
40450
Component
Diesel Engine
Fluid
CHEVRON 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Glycol Contamination



▲ Additives



RECOMMENDATION

We advise that you check for the source of the coolant leak. The oil is near the end of it's useful service life, recommend schedule an oil change. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	ABNORMAL
Zinc	ppm	ASTM D5185m		▲ **1700**	1133	1295
Sulfur	ppm	ASTM D5185m		▲ **4851**	3269	3506
Potassium	ppm	ASTM D5185m	>20	▲ **1234**	▲ 1050	▲ 224
Glycol	%	*ASTM D2982		▲ **0.20**	▲ 0.20	▲ 0.06

Customer Id: MSCDUR
Sample No.: WC0924564
Lab Number: 06156583
Test Package: CONST

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
Flush System	---	---	?	We advise that you flush the component thoroughly before re-filling with oil.
Service/change Fluid	---	---	?	The oil is near the end of it's useful service life, recommend schedule an oil change.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Information Required	---	---	?	Please specify the component make and model with your next sample.
Check Glycol Access	---	---	?	We advise that you check for the source of the coolant leak.

HISTORICAL DIAGNOSIS

GLYCOL

02 Apr 2024 Diag: Jonathan Hester

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.All component wear rates are normal. Sodium and/or potassium levels are high. There is a high concentration of glycol present in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

view report

GLYCOL

02 Feb 2024 Diag: Jonathan Hester

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.All component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is positive. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report

GLYCOL

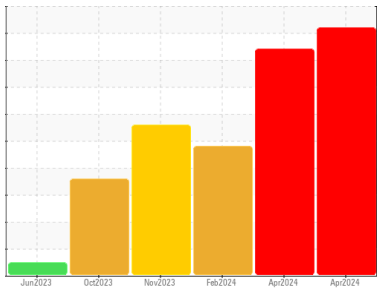
27 Nov 2023 Diag: Wes Davis

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. No other corrective action is recommended at this time. Please specify the component make and model with your next sample.All component wear rates are normal. Test for glycol is positive. Light fuel dilution occurring. There is a moderate concentration of glycol present in the oil. No other contaminants were detected in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL

Machine Id
40450
Component
Diesel Engine
Fluid
CHEVRON 15W40 (--- GAL)

DIAGNOSIS

Recommendation
We advise that you check for the source of the coolant leak. The oil is near the end of it's useful service life, recommend schedule an oil change. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

Wear
All component wear rates are normal.

Contamination
Test for glycol is positive. There is a high concentration of glycol present in the oil.

Fluid Condition
Sulfur ppm levels are abnormally high. Zinc ppm levels are abnormally high. Sodium ppm levels are notably high. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0924564**	WC0905126	WC0882651
Sample Date		Client Info		**19 Apr 2024**	02 Apr 2024	02 Feb 2024
Machine Age	hrs	Client Info		**0**	8236	7953
Oil Age	hrs	Client Info		**0**	750	2000
Oil Changed		Client Info		**Not Changd**	Changed	Changed
Sample Status				**SEVERE**	SEVERE	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	**12**	17	14
Chromium	ppm	ASTM D5185m	>20	**1**	1	0
Nickel	ppm	ASTM D5185m	>4	**1**	2	0
Titanium	ppm	ASTM D5185m		**1**	2	0
Silver	ppm	ASTM D5185m	>3	**<1**	0	0
Aluminum	ppm	ASTM D5185m	>20	**6**	4	3
Lead	ppm	ASTM D5185m	>40	**7**	8	0
Copper	ppm	ASTM D5185m	>330	**2**	3	2
Tin	ppm	ASTM D5185m	>15	**<1**	1	0
Vanadium	ppm	ASTM D5185m		**<1**	<1	0
Cadmium	ppm	ASTM D5185m		**<1**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**455**	366	420
Barium	ppm	ASTM D5185m		**2**	<1	0
Molybdenum	ppm	ASTM D5185m		**230**	200	115
Manganese	ppm	ASTM D5185m		**<1**	1	<1
Magnesium	ppm	ASTM D5185m		**522**	378	402
Calcium	ppm	ASTM D5185m		**1815**	1348	1387
Phosphorus	ppm	ASTM D5185m		**1463**	963	1051
Zinc	ppm	ASTM D5185m		▲ **1700**	1133	1295
Sulfur	ppm	ASTM D5185m		▲ **4851**	3269	3506

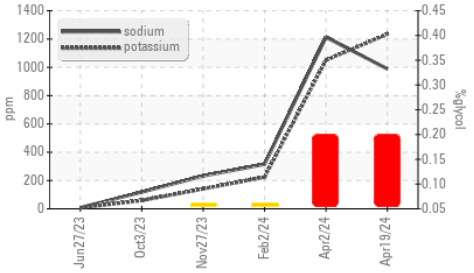
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**21**	23	9
Sodium	ppm	ASTM D5185m	>50	● **989**	▲ 1212	▲ 315
Potassium	ppm	ASTM D5185m	>20	▲ **1234**	▲ 1050	▲ 224
Glycol	%	*ASTM D2982		▲ **0.20**	▲ 0.20	▲ 0.06

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.1**	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	**7.4**	9.0	6.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	**20.5**	22.3	20.1

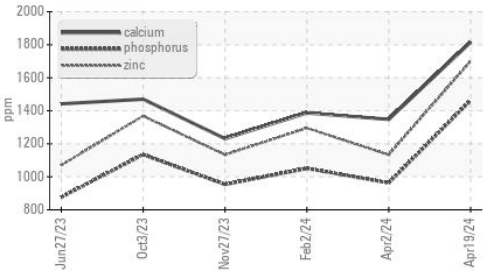
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**13.7**	13.6	13.1
Base Number (BN)	mg KOH/g	ASTM D2896		**10.4**	11.2	8.4

OIL ANALYSIS REPORT

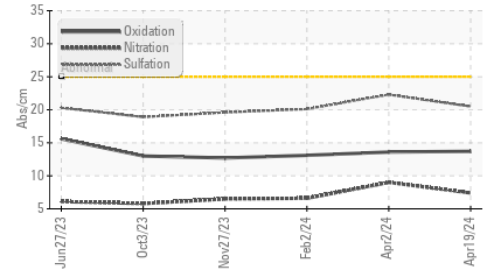
Glycol Contamination



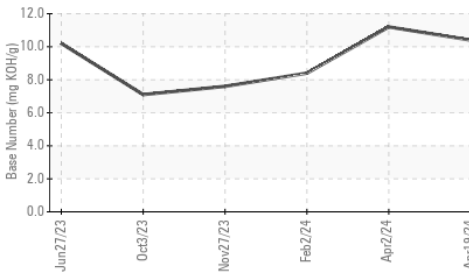
Additives



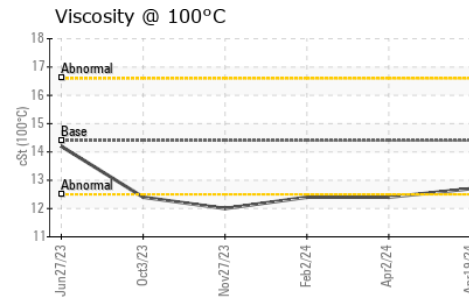
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

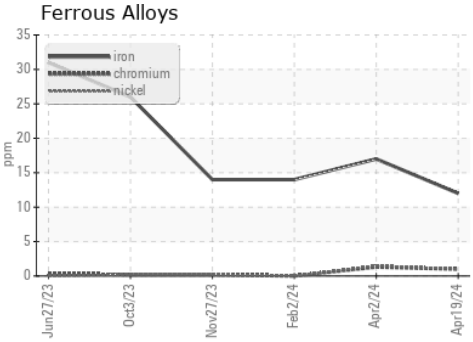


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

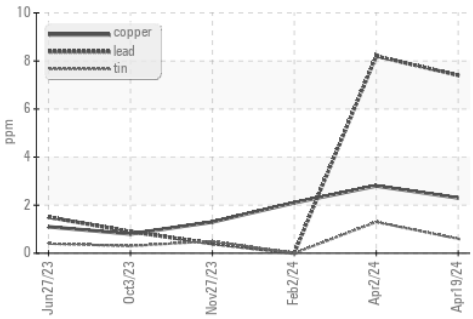
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	**12.7**	12.4	12.4

GRAPHS

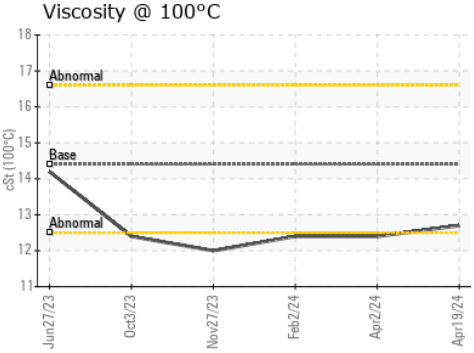
Ferrous Alloys



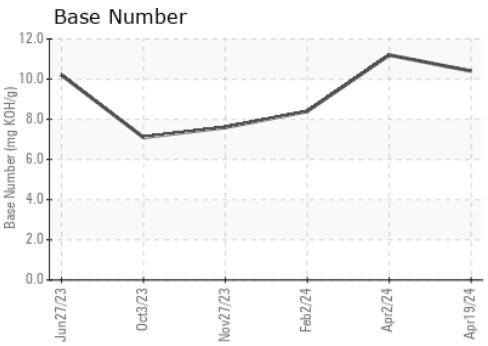
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0924564 **Received** : 22 Apr 2024
Lab Number : 06156583 **Tested** : 23 Apr 2024
Unique Number : 10992006 **Diagnosed** : 23 Apr 2024 - Wes Davis
Test Package : CONST (Additional Tests: TBN)

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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