OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

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

RECOMMENDATION

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.

WEAR

All component wear rates are normal.

CONTAMINATION

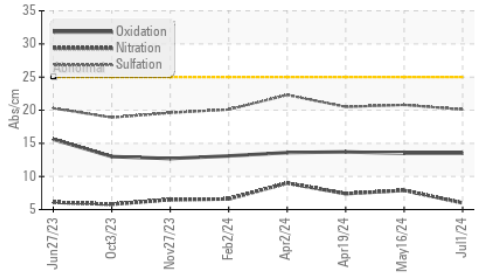
Sodium and/or potassium levels are high.

FLUID CONDITION

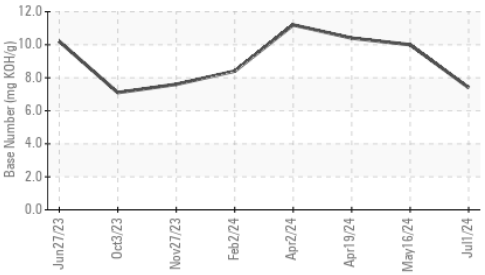
The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0913562	WC0905357	WC0924564
Sample Date		Client Info		01 Jul 2024	16 May 2024	19 Apr 2024
Machine Age	hrs	Client Info		8769	8456	0
Oil Age	hrs	Client Info		250	1000	0
Filter Age	hrs	Client Info		250	1000	0
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				ABNORMAL	SEVERE	SEVERE
Iron	ppm	ASTM D5185m	>100	6	13	12
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>4	0	<1	1
Titanium	ppm	ASTM D5185m		<1	1	1
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	3	6	6
Lead	ppm	ASTM D5185m	>40	<1	10	7
Copper	ppm	ASTM D5185m	>330	3	2	2
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	5	20	21
Potassium	ppm	ASTM D5185m	>20	▲ 102	▲ 1069	▲ 1234
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	▲ 0.20	▲ 0.20
Soot %	%	*ASTM D7844	>3	0.2	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	6.0	7.9	7.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.1	20.8	20.5
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
Sodium	ppm	ASTM D5185m	>50	▲ 82	▲ 952	● 989
Boron	ppm	ASTM D5185m		340	420	455
Barium	ppm	ASTM D5185m		0	0	2
Molybdenum	ppm	ASTM D5185m		89	211	230
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		359	470	522
Calcium	ppm	ASTM D5185m		1309	1598	1815
Phosphorus	ppm	ASTM D5185m		998	1404	1463
Zinc	ppm	ASTM D5185m		1176	1504	▲ 1700
Sulfur	ppm	ASTM D5185m		2945	4681	▲ 4851
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.5	13.5	13.7
Base Number (BN)	mg KOH/g	ASTM D2896		7.4	10.0	10.4
Visc @ 100°C	cSt	ASTM D445	14.4	12.3	12.3	12.7

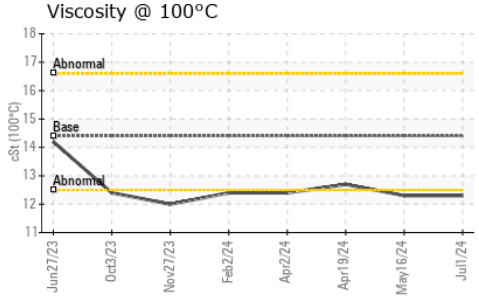
FT-IR (Direct Trend)



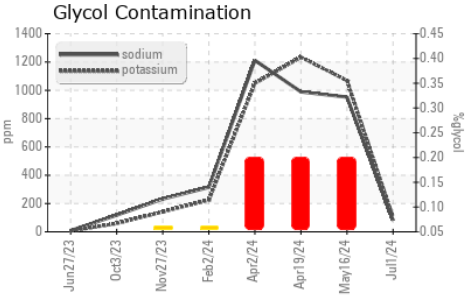
Base Number



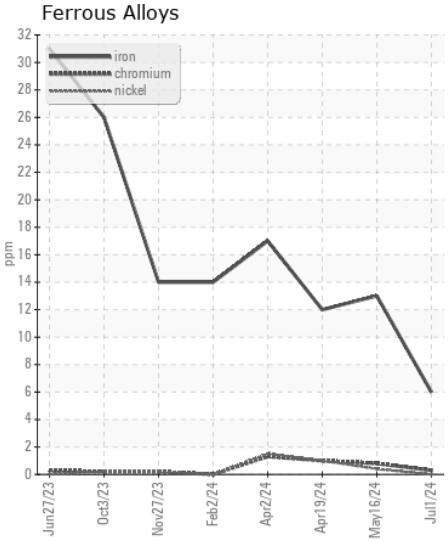
Viscosity @ 100°C



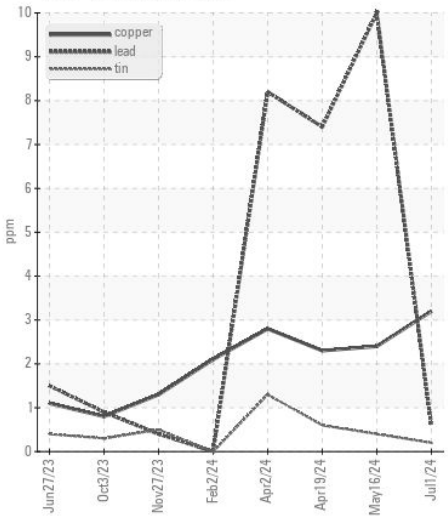
Glycol Contamination



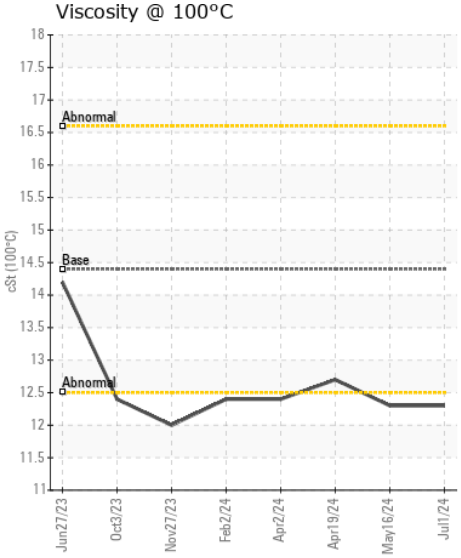
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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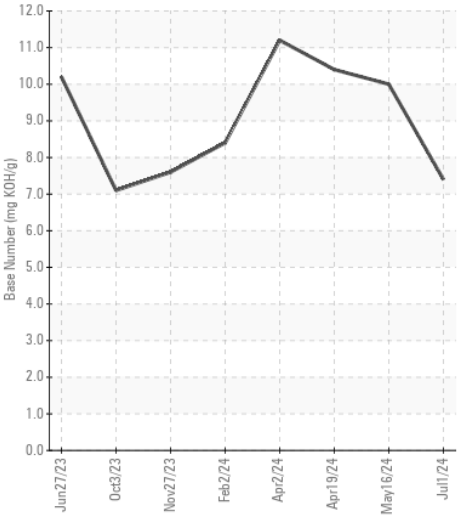

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0913562
Lab Number : 06227049
Unique Number : 11110542
Test Package : CONST (Additional Tests: TBN)

Received : 03 Jul 2024
Tested : 05 Jul 2024
Diagnosed : 05 Jul 2024 - Jonathan Hester

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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