OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
139-469
Component
Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.

WEAR

The aluminum level is abnormal. All other component wear rates are normal.

CONTAMINATION

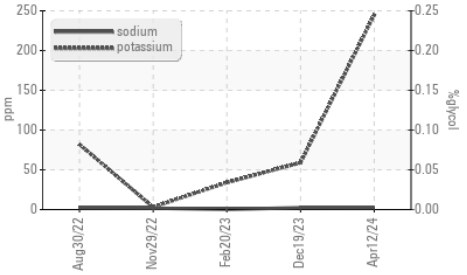
Sodium and/or potassium levels are high.

FLUID CONDITION

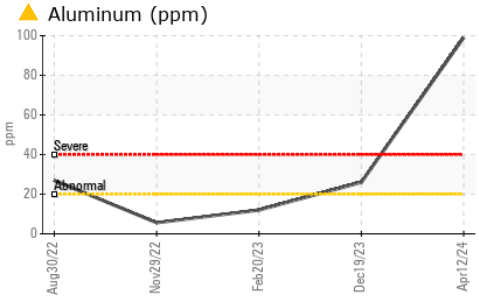
The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0016732	RPL0015292	RPL0007298
Sample Date		Client Info		12 Apr 2024	19 Dec 2023	20 Feb 2023
Machine Age	mls	Client Info		230845	230845	230845
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	60000	0
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	81	111	20
Chromium	ppm	ASTM D5185m	>20	3	5	1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	▲ 99	26	12
Lead	ppm	ASTM D5185m	>40	5	6	1
Copper	ppm	ASTM D5185m	>330	0	6	1
Tin	ppm	ASTM D5185m	>15	2	2	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	20	14	9
Potassium	ppm	ASTM D5185m	>20	▲ 245	59	34
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.3	1	0.5
Nitration	Abs/cm	*ASTM D7624	>20	13.5	15.1	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	31.6	32.2	24.8
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		2	2	<1
Boron	ppm	ASTM D5185m		40	46	197
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		126	118	139
Manganese	ppm	ASTM D5185m		1	2	1
Magnesium	ppm	ASTM D5185m		682	640	769
Calcium	ppm	ASTM D5185m		1736	1554	1723
Phosphorus	ppm	ASTM D5185m	1360	740	727	732
Zinc	ppm	ASTM D5185m	1480	903	901	944
Sulfur	ppm	ASTM D5185m		2750	2444	2712
Oxidation	Abs/.1mm	*ASTM D7414	>25	28.8	36.4	18.7
Base Number (BN)	mg KOH/g	ASTM D2896	12.2	4.5	3.9	8.5
Visc @ 100°C	cSt	ASTM D445	15.1	14.0	13.6	13.4

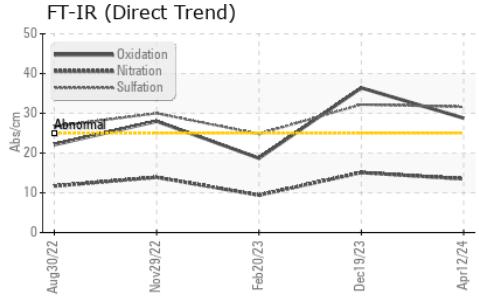
Glycol Contamination



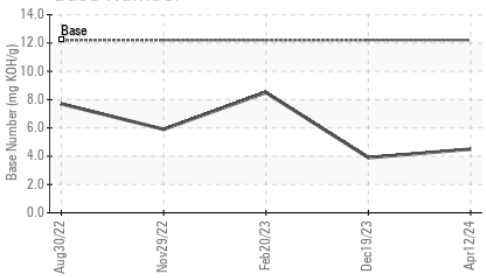
Aluminum (ppm)



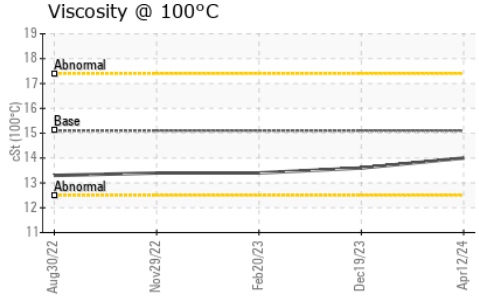
FT-IR (Direct Trend)



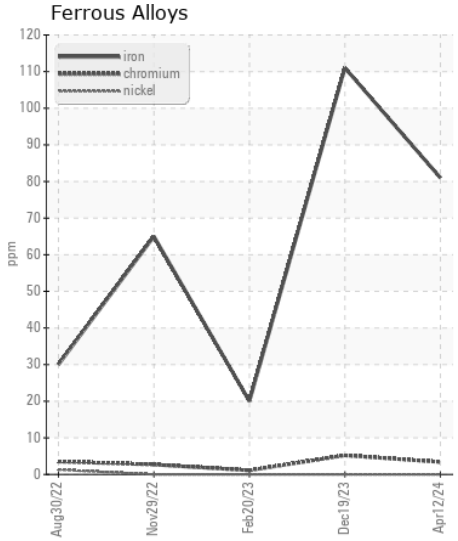
Base Number



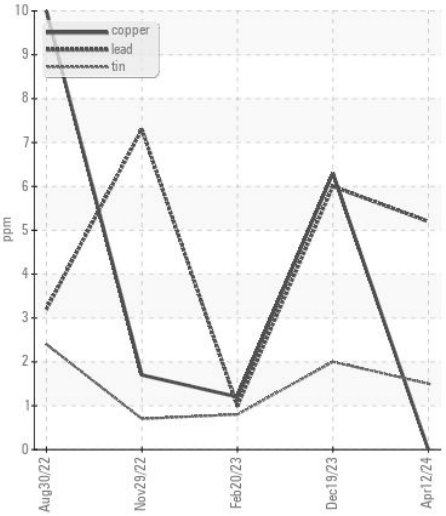
Viscosity @ 100°C



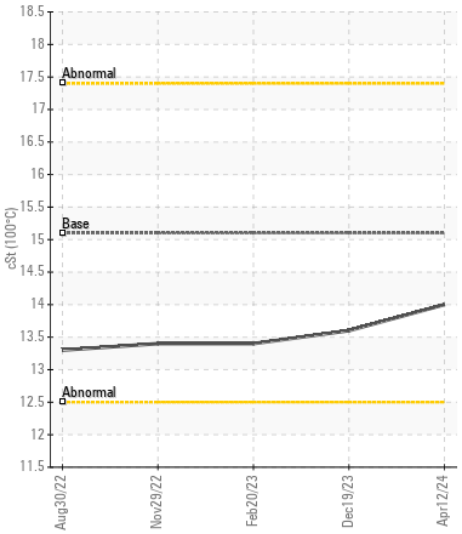
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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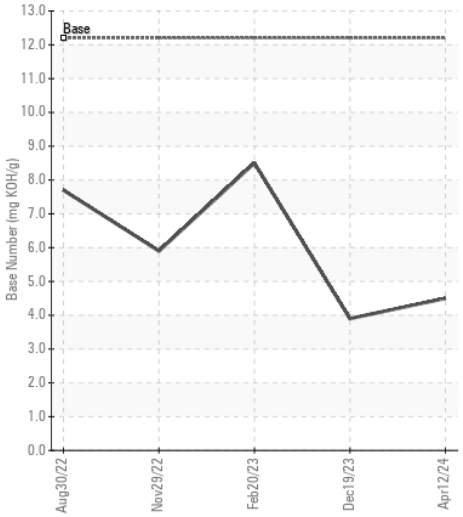

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RPL0016732
Lab Number : 06151679
Unique Number : 10981757
Test Package : FLEET

Received : 17 Apr 2024
Tested : 18 Apr 2024
Diagnosed : 22 Apr 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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