



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
139-319
Component
Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (44 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0019726	RPL0016753	RPL0015275
Sample Date		Client Info		10 Jun 2024	12 Apr 2024	19 Dec 2023
Machine Age	hrs	Client Info		594021	569850	534111
Oil Age	hrs	Client Info		558282	35739	25000
Filter Age	hrs	Client Info		0	0	25000
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	18	17	13
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	10	2	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	5	5
Lead	ppm	ASTM D5185m	>150	4	3	3
Copper	ppm	ASTM D5185m	>90	<1	0	<1
Tin	ppm	ASTM D5185m	>5	<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

There is no indication of any contamination in the oil.

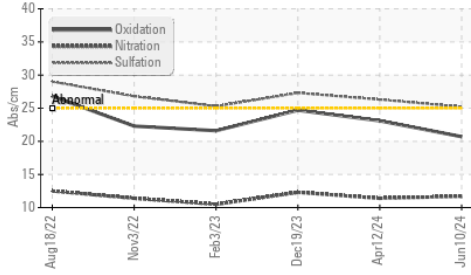
Silicon	ppm	ASTM D5185m	>35	12	26	5
Potassium	ppm	ASTM D5185m	>20	6	2	9
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	0.7	0.6	0.6
Nitration	Abs/cm	*ASTM D7624	>20	11.7	11.4	12.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.2	26.3	27.3
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

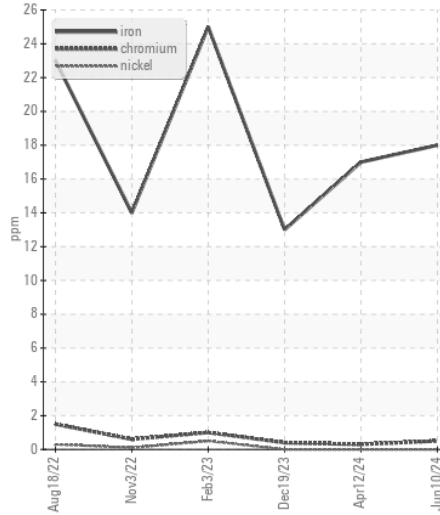
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		3	0	<1
Boron	ppm	ASTM D5185m		39	145	65
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		38	113	97
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		745	716	595
Calcium	ppm	ASTM D5185m		1535	1543	1106
Phosphorus	ppm	ASTM D5185m	1360	755	712	509
Zinc	ppm	ASTM D5185m	1480	862	836	617
Sulfur	ppm	ASTM D5185m		3442	2725	1901
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.7	23.1	24.7
Base Number (BN)	mg KOH/g	ASTM D2896	12.2	5.6	7.0	6.5
Visc @ 100°C	cSt	ASTM D445	15.1	14.3	14.0	14.0

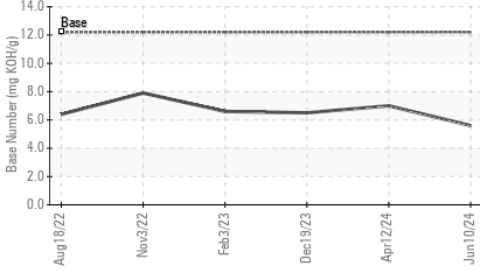
FT-IR (Direct Trend)



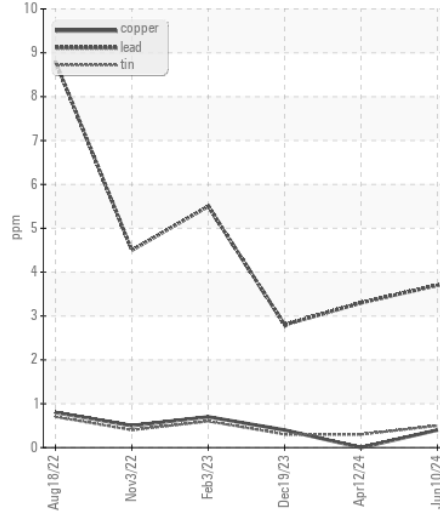
Ferrous Alloys



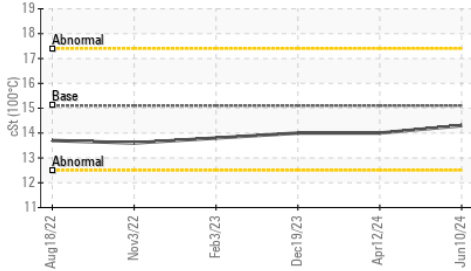
Base Number



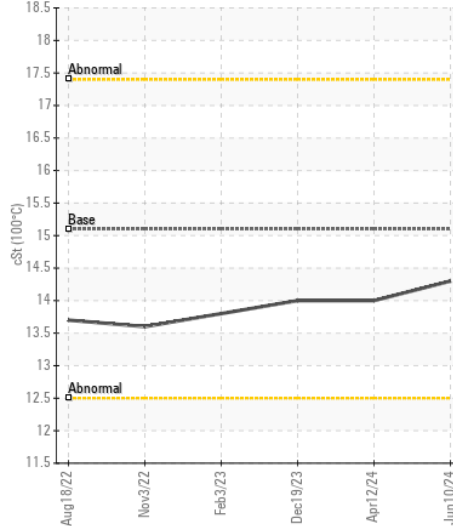
Non-ferrous Metals



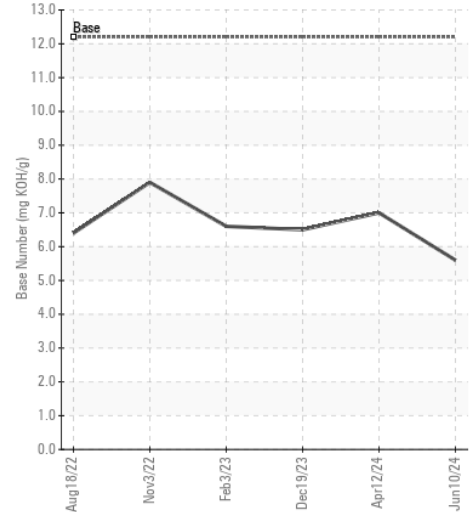
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : RPL0019726

Lab Number : 06231936

Unique Number : 11115429

Test Package : FLEET

Received : 10 Jul 2024

Tested : 10 Jul 2024

Diagnosed : 10 Jul 2024 - Wes Davis

RTL PACLEASE - 7005 - Arlington

1900 E Division

Arlington, TX

US 76011

Contact: Ricardo Ronquillo

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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)