



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**139195**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON DELO 400 MULTIGRADE 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>RPL0019732</b>	RPL0016677	RPL0015272
Sample Date		Client Info		<b>20 May 2024</b>	01 Mar 2024	19 Dec 2023
Machine Age	mls	Client Info		<b>220697</b>	216597	205671
Oil Age	mls	Client Info		<b>175953</b>	182779	192153
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	<b>15</b>	14	7
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>10</b>	8	4
Lead	ppm	ASTM D5185m	>150	<b>5</b>	4	3
Copper	ppm	ASTM D5185m	>90	<b>4</b>	4	2
Tin	ppm	ASTM D5185m	>5	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

There is no indication of any contamination in the oil.

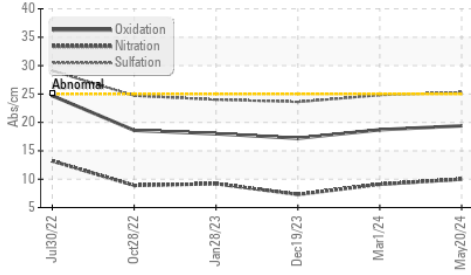
Silicon	ppm	ASTM D5185m	>35	<b>8</b>	7	6
Potassium	ppm	ASTM D5185m	>20	<b>20</b>	15	6
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	<b>0.5</b>	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.0</b>	9.1	7.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.3</b>	24.8	23.6
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

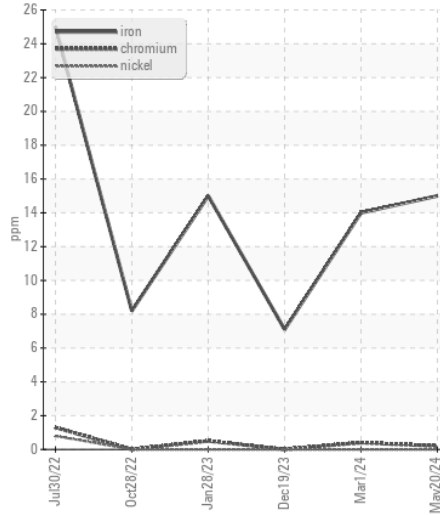
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>3</b>	6	<1
Boron	ppm	ASTM D5185m	151	<b>268</b>	283	311
Barium	ppm	ASTM D5185m	0.4	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	250	<b>124</b>	127	115
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	0	<b>688</b>	710	649
Calcium	ppm	ASTM D5185m	2046	<b>1547</b>	1679	1562
Phosphorus	ppm	ASTM D5185m	1043	<b>759</b>	772	706
Zinc	ppm	ASTM D5185m	943	<b>873</b>	871	828
Sulfur	ppm	ASTM D5185m	5012	<b>2882</b>	2680	2523
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.4</b>	18.7	17.2
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	<b>7.9</b>	8.2	9.1
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.3</b>	13.3	13.4

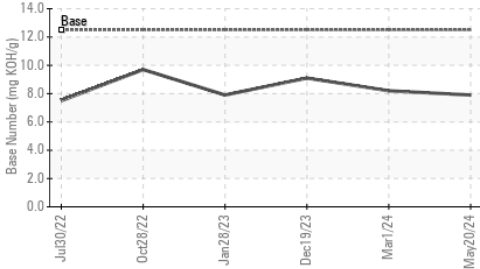
**FT-IR (Direct Trend)**



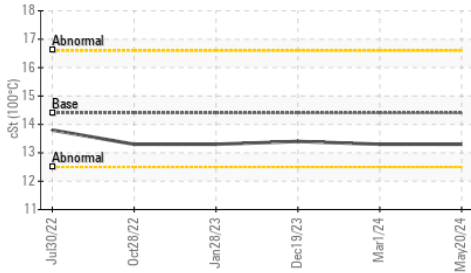
**Ferrous Alloys**



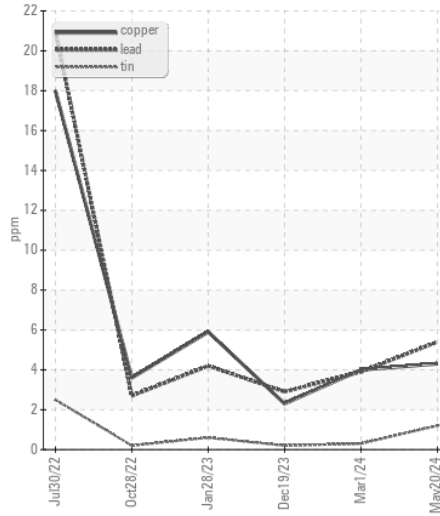
**Base Number**



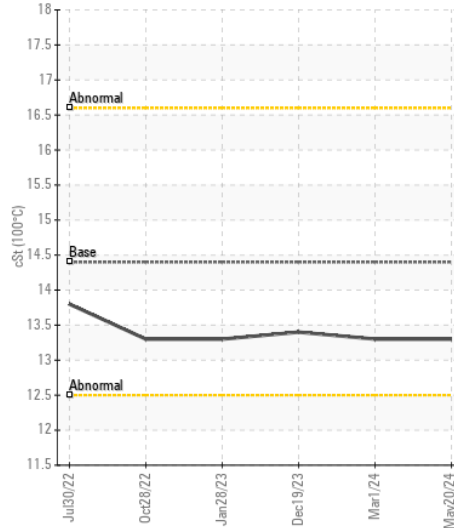
**Viscosity @ 100°C**



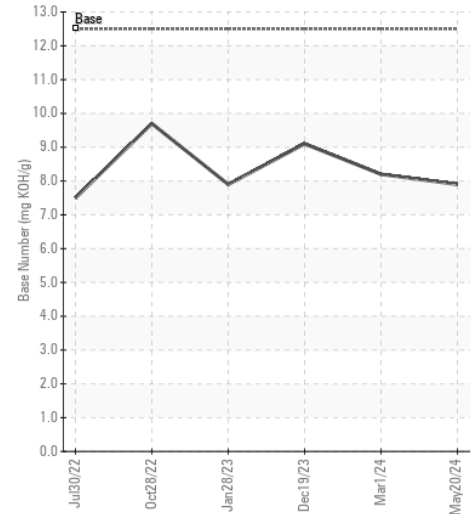
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

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

**Sample No.** : RPL0019732

**Lab Number** : 06193759

**Unique Number** : 11050511

**Test Package** : FLEET

**Received** : 29 May 2024

**Tested** : 30 May 2024

**Diagnosed** : 30 May 2024 - Wes Davis

**RTL PACLEASE - 7005 - Arlington**

1900 E Division

Arlington, TX

US 76011

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F:

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)