



# OIL ANALYSIS REPORT

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

Machine Id  
**857-3690**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON DELO 400 SAE 10W30 (--- GAL)**

## RECOMMENDATION

We recommend that you drain the oil and perform a filter service on this component if not already done. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>RPL0013888</b>	RPL0010817	RPL0010633
Sample Date		Client Info		<b>22 Jan 2024</b>	18 Sep 2023	08 Mar 2023
Machine Age	hrs	Client Info		<b>12219</b>	11623	238639
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	N/A	Changed
Filter Changed		Client Info		<b>Not Changd</b>	N/A	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

Cylinder, crank, or cam shaft wear is indicated.

Iron	ppm	ASTM D5185m	>100	<b>▲ 108</b>	63	55
Chromium	ppm	ASTM D5185m	>20	<b>6</b>	5	2
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Lead	ppm	ASTM D5185m	>40	<b>11</b>	6	5
Copper	ppm	ASTM D5185m	>330	<b>2</b>	1	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
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

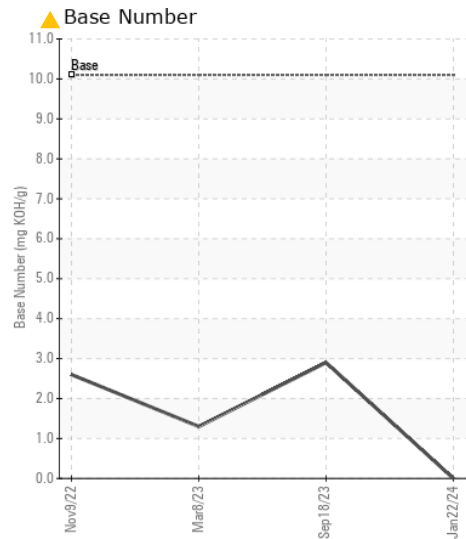
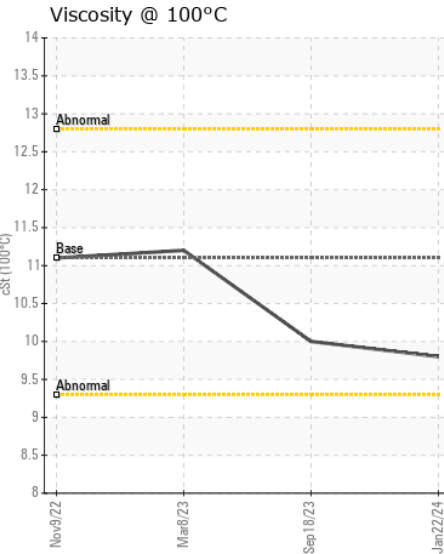
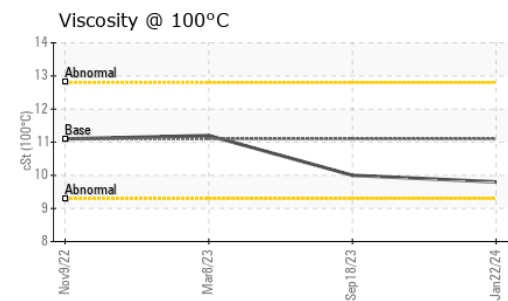
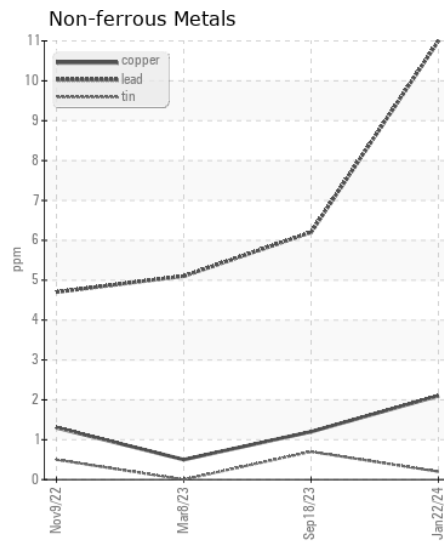
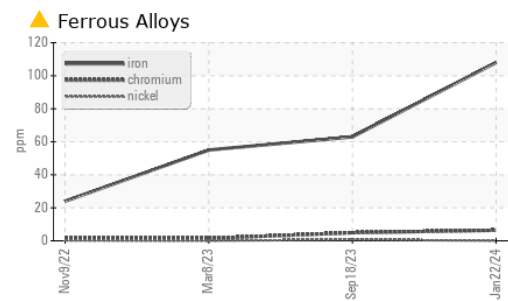
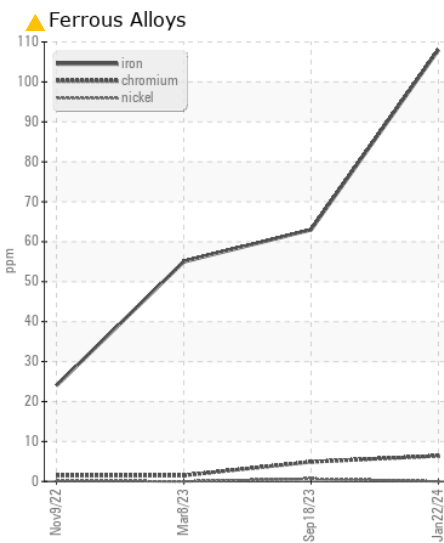
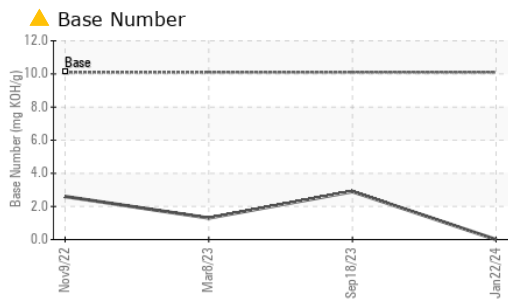
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	6	6
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	7	9
Fuel		WC Method	>5	<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	>3	<b>0.8</b>	0.4	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>14.1</b>	12.3	13.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>36.9</b>	29.3	35.8
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 level is low. The oil is no longer serviceable.

Sodium	ppm	ASTM D5185m		<b>3</b>	2	5
Boron	ppm	ASTM D5185m		<b>19</b>	26	24
Barium	ppm	ASTM D5185m		<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m		<b>20</b>	20	17
Manganese	ppm	ASTM D5185m		<b>1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>613</b>	655	613
Calcium	ppm	ASTM D5185m		<b>1195</b>	1207	1419
Phosphorus	ppm	ASTM D5185m	1260	<b>654</b>	647	650
Zinc	ppm	ASTM D5185m	1400	<b>758</b>	760	840
Sulfur	ppm	ASTM D5185m		<b>2472</b>	2714	2917
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>47.2</b>	32.2	44.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>▲ 0.0</b>	▲ 2.9	▲ 1.3
Visc @ 100°C	cSt	ASTM D445	11.1	<b>9.8</b>	10.0	11.2



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RPL0013888 **Received** : 30 Jan 2024  
**Lab Number** : 06073533 **Diagnosed** : 31 Jan 2024  
**Unique Number** : 10850210 **Diagnostician** : Don Baldridge  
**Test Package** : FLEET

**RTL PACLEASE - 7001 - Houston**  
 6300 N. Loop East  
 Houston, TX  
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 Contact: RODNEY BRIGGS  
 briggs@rushenterprises.com  
 T:  
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Certificate L2367  
 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)