



# OIL ANALYSIS REPORT

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

Machine Id  
**8574350**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON DELO 400 MULTIGRADE 15W40 (--- GAL)**

## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>RPL0016746</b>	RPL0007272	RPL0007209
Sample Date		Client Info		<b>12 Apr 2024</b>	21 Feb 2023	08 Nov 2022
Machine Age	mls	Client Info		<b>192257</b>	121089	107311
Oil Age	mls	Client Info		<b>71168</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	Changed	Not Changd
Filter Changed		Client Info		<b>N/A</b>	Changed	Not Changd
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>20</b>	62	36
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	4	3
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>2</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>9</b>	22	17
Lead	ppm	ASTM D5185m	>40	<b>2</b>	6	5
Copper	ppm	ASTM D5185m	>330	<b>0</b>	5	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	2	<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 a light concentration of water present in the oil.

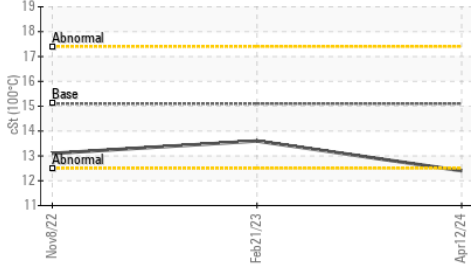
Silicon	ppm	ASTM D5185m	>25	<b>5</b>	11	8
Potassium	ppm	ASTM D5185m	>20	<b>19</b>	56	44
Fuel	%	ASTM D3524	>5	<b>▲ 3.1</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.2</b>	14.0	13.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>28.2</b>	32.5	32.2
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

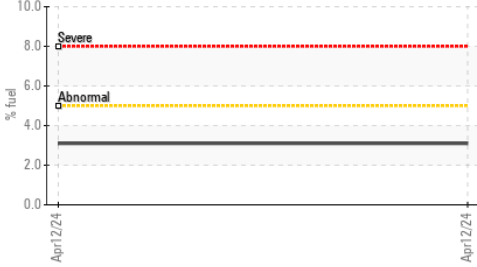
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	3	1
Boron	ppm	ASTM D5185m		<b>169</b>	48	60
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>108</b>	130	135
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	2	1
Magnesium	ppm	ASTM D5185m		<b>638</b>	607	670
Calcium	ppm	ASTM D5185m		<b>1455</b>	1487	1608
Phosphorus	ppm	ASTM D5185m	1360	<b>632</b>	663	676
Zinc	ppm	ASTM D5185m	1480	<b>729</b>	879	864
Sulfur	ppm	ASTM D5185m		<b>2584</b>	2553	2977
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>32.0</b>	37.6	35.3
Base Number (BN)	mg KOH/g	ASTM D2896	12.2	<b>5.3</b>	▲ 3.1	4.3
Visc @ 100°C	cSt	ASTM D445	15.1	<b>▲ 12.4</b>	13.6	13.1

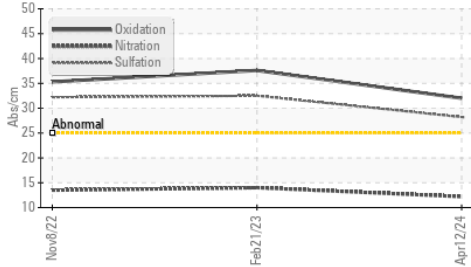
▲ Viscosity @ 100°C



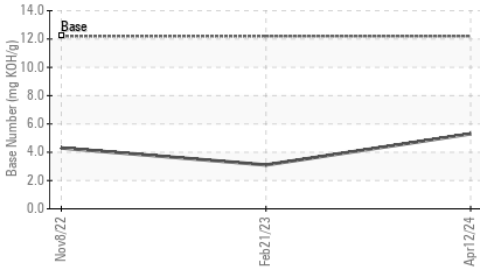
▲ Fuel Dilution



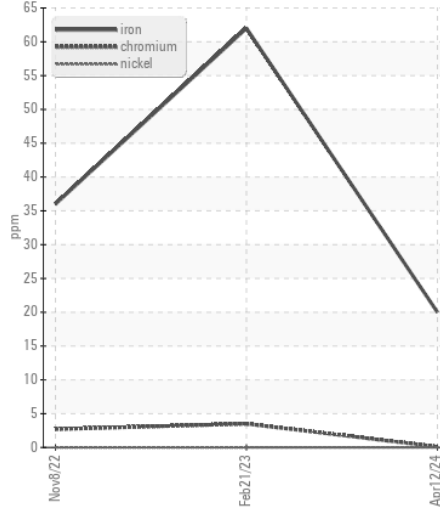
FT-IR (Direct Trend)



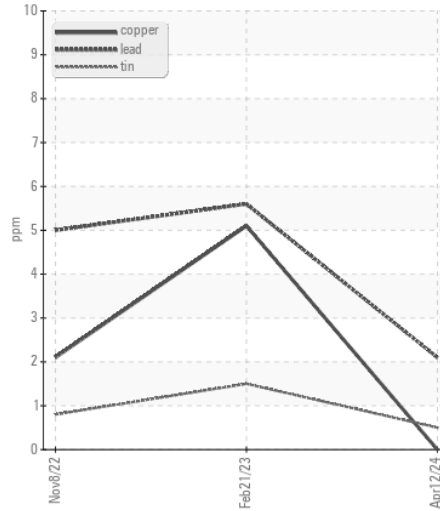
Base Number



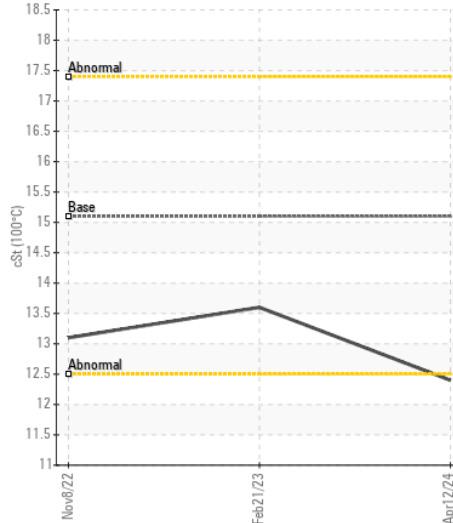
Ferrous Alloys



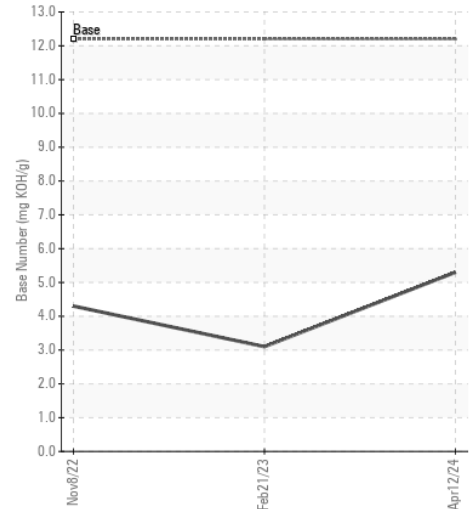
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : RPL0016746

Lab Number : 06151454

Unique Number : 10981532

Test Package : FLEET ( Additional Tests: FuelDilution, PercentFuel )

Received : 17 Apr 2024

Tested : 22 Apr 2024

Diagnosed : 22 Apr 2024 - Sean Felton

RTL PACLEASE - 7005 - Arlington

1900 E Division

Arlington, TX

US 76011

Contact: Ricardo Ronquillo

ronquillor@rushenterprises.com

T: (469)203-8172

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)