



# OIL ANALYSIS REPORT

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

Machine Id  
**12555**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON DELO 400 SDE SAE 15W40 (--- QTS)**

## RECOMMENDATION

The oil change at the time of sampling has been noted. 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>WC0913837</b>	WC0672743	WC0710878
Sample Date		Client Info		<b>15 Mar 2024</b>	08 May 2023	03 Nov 2022
Machine Age	mls	Client Info		<b>186339</b>	167437	158174
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR

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

Iron	ppm	ASTM D5185m	>100	<b>79</b>	40	21
Chromium	ppm	ASTM D5185m	>20	<b>3</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>2</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>▲ 26</b>	4	5
Lead	ppm	ASTM D5185m	>40	<b>1</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>3</b>	1	1
Tin	ppm	ASTM D5185m	>15	<b>2</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	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.

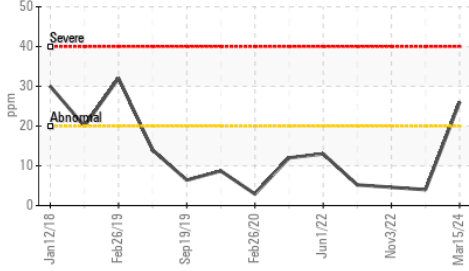
Silicon	ppm	ASTM D5185m	>25	<b>11</b>	5	4
Potassium	ppm	ASTM D5185m	>20	<b>12</b>	4	4
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>1.4</b>	0.7	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>18.1</b>	12.6	11.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>31.4</b>	23.9	23.3
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

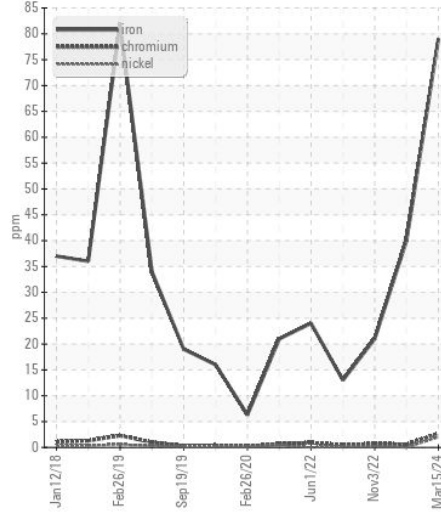
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>3</b>	2	2
Boron	ppm	ASTM D5185m		<b>1</b>	6	49
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>71</b>	64	76
Manganese	ppm	ASTM D5185m		<b>2</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>1095</b>	975	911
Calcium	ppm	ASTM D5185m		<b>1313</b>	1213	1281
Phosphorus	ppm	ASTM D5185m	760	<b>1330</b>	979	921
Zinc	ppm	ASTM D5185m	800	<b>1492</b>	1286	1162
Sulfur	ppm	ASTM D5185m	3000	<b>3767</b>	3321	3054
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>31.8</b>	21.1	20.0
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>5.8</b>	7.1	9.5
Visc @ 100°C	cSt	ASTM D445	14.6	<b>14.4</b>	12.9	13.3

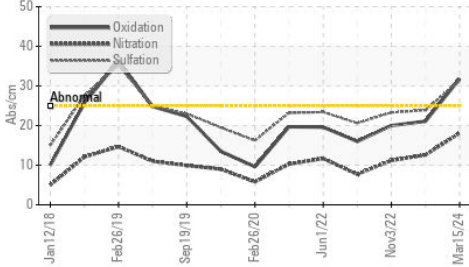
▲ Aluminum (ppm)



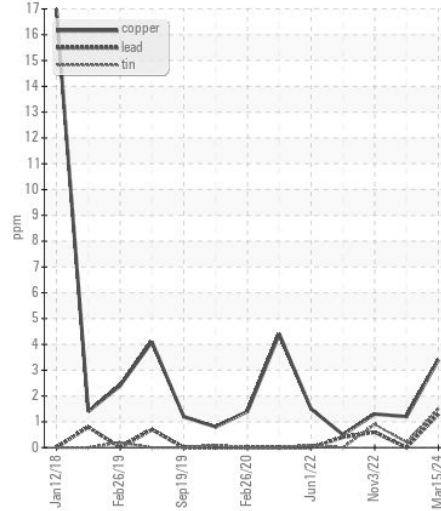
Ferrous Alloys



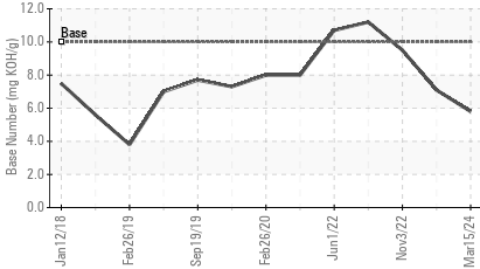
FT-IR (Direct Trend)



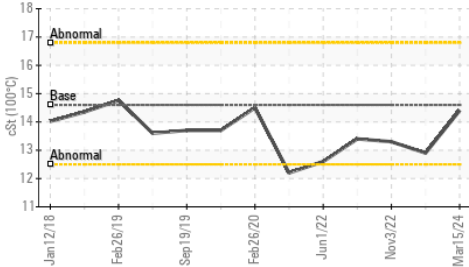
Non-ferrous Metals



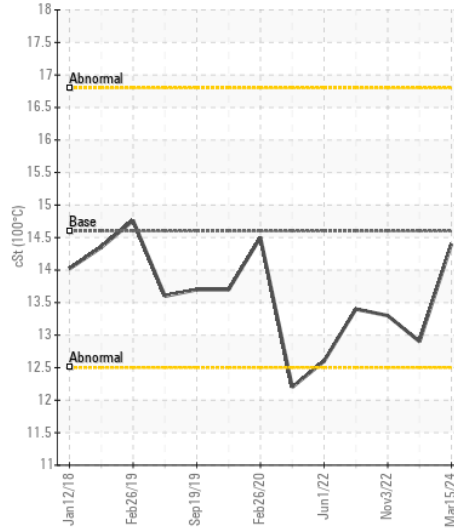
Base Number



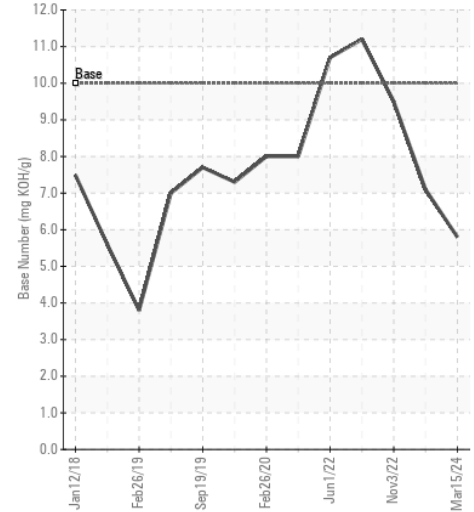
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : WC0913837

Lab Number : 06152549

Unique Number : 10982627

Test Package : FLEET

Received : 17 Apr 2024

Tested : 18 Apr 2024

Diagnosed : 22 Apr 2024 - Don Baldrige

SALEM NATIONALEASE CORPORATION

198 PARK PLAZA DRIVE

WINSTON SALEM, NC

US 27105

Contact: Audrey Hopkins

Audrey.Hopkins@salemcorp.com

T: (336)767-9642

F: x:

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)