



# WEAR CHECK

## OIL ANALYSIS REPORT

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

Machine Id  
**13021**  
Component  
**Diesel Engine**  
Fluid  
**CHEVRON DELO 400 XLE 10W30 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0833163</b>	WC0833206	WC0833169
Sample Date		Client Info		<b>15 Feb 2024</b>	14 Oct 2023	13 Jul 2023
Machine Age	mls	Client Info		<b>95287</b>	48158	12701
Oil Age	mls	Client Info		<b>50129</b>	35458	12701
Filter Age	mls	Client Info		<b>50129</b>	35458	12701
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>77</b>	31	35
Chromium	ppm	ASTM D5185m	>20	<b>3</b>	2	2
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>13</b>	21	11
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>3</b>	2	5
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

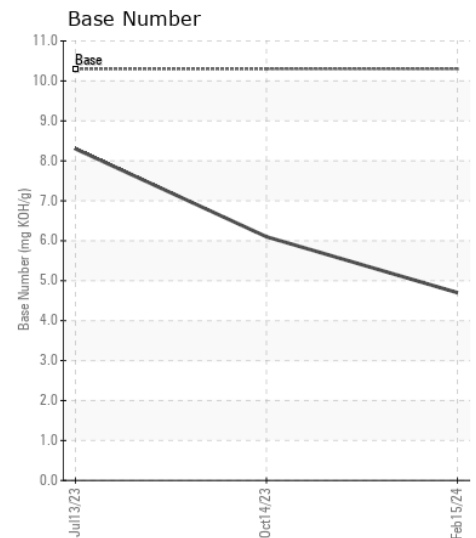
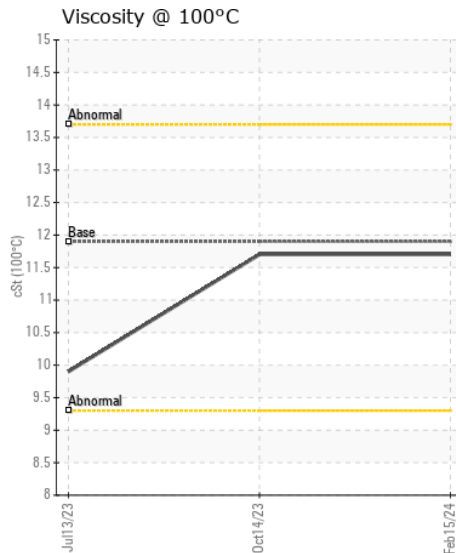
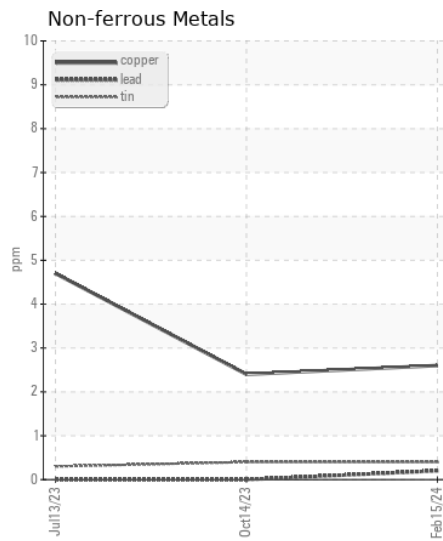
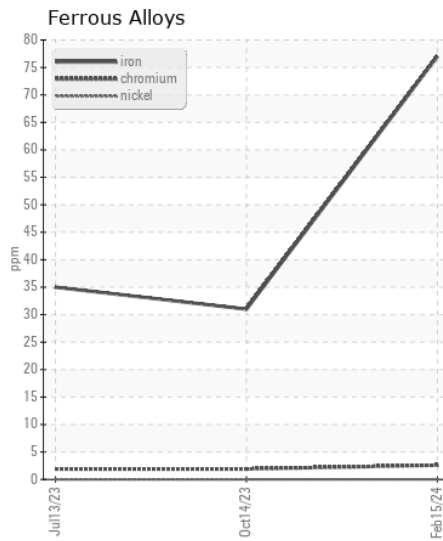
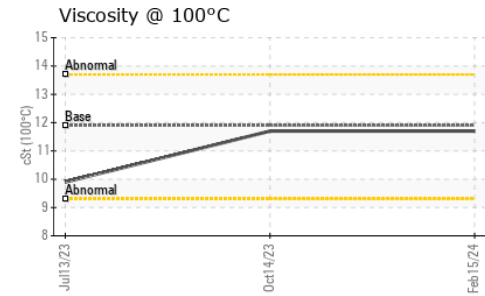
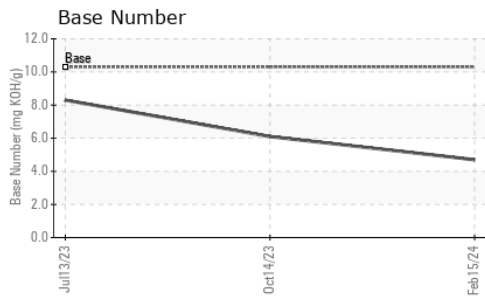
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>12</b>	10	13
Potassium	ppm	ASTM D5185m	>20	<b>47</b>	75	38
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>0.9</b>	0.7	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.2</b>	10.0	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.4</b>	22.5	22.5
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>5</b>	3	5
Boron	ppm	ASTM D5185m		<b>15</b>	22	44
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>1</b>	3	39
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	3
Magnesium	ppm	ASTM D5185m		<b>772</b>	774	529
Calcium	ppm	ASTM D5185m	2900	<b>1445</b>	1415	1619
Phosphorus	ppm	ASTM D5185m	1100	<b>703</b>	745	716
Zinc	ppm	ASTM D5185m	1200	<b>817</b>	898	876
Sulfur	ppm	ASTM D5185m	4000	<b>2966</b>	2854	2641
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.8</b>	16.7	20.4
Base Number (BN)	mg KOH/g	ASTM D2896	10.3	<b>4.7</b>	6.1	8.3
Visc @ 100°C	cSt	ASTM D445	11.9	<b>11.7</b>	11.7	9.9



Certificate L2367

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

**Sample No.** : WC0833163

**Lab Number** : 06098933

**Unique Number** : 10897163

**Test Package** : FLEET

**Received** : 23 Feb 2024

**Tested** : 26 Feb 2024

**Diagnosed** : 26 Feb 2024 - Don Baldrige

**LTI/MILKY WAY - MOSES**

120 WISER LANE

MOSES LAKE, WA

US 98837

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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)