



# OIL ANALYSIS REPORT

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

Area  
**GM Seattle Off Road Shop**  
 Machine Id  
**[GM Seattle Off Road Shop] 26-213**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON DELO 400 LE 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PE0002176</b>	PE12290987	PE12291558
Sample Date		Client Info		<b>04 Dec 2023</b>	02 Dec 2021	10 Jun 2020
Machine Age	hrs	Client Info		<b>9724</b>	8523	8164
Oil Age	hrs	Client Info		<b>1201</b>	359	523
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	---	---
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>22</b>	16	27
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>76</b>	0	1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	1	2
Lead	ppm	ASTM D5185m	>40	<b>2</b>	1	3
Copper	ppm	ASTM D5185m	>330	<b>1</b>	1	1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

## CONTAMINATION

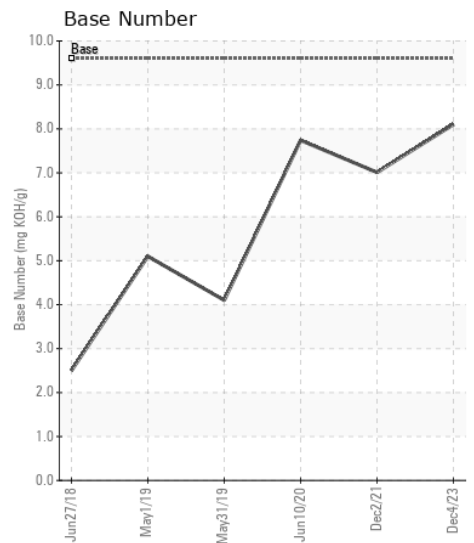
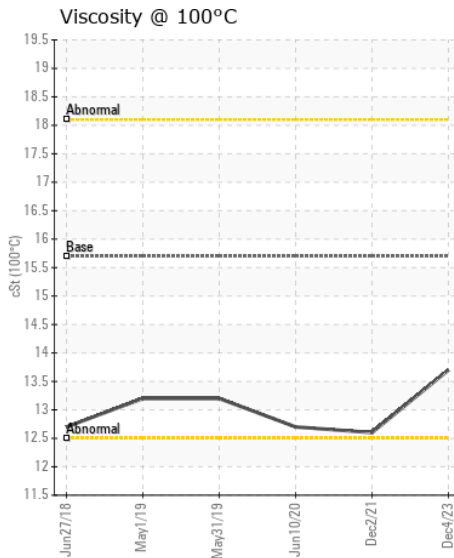
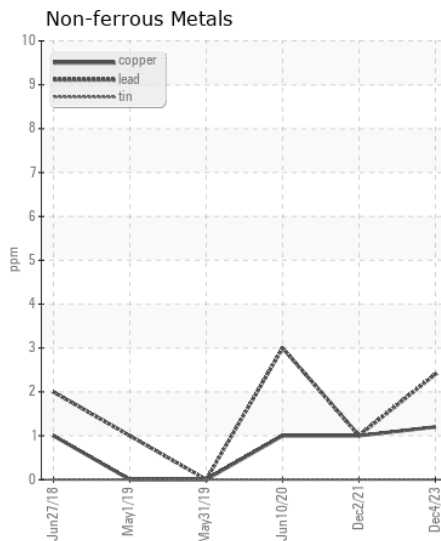
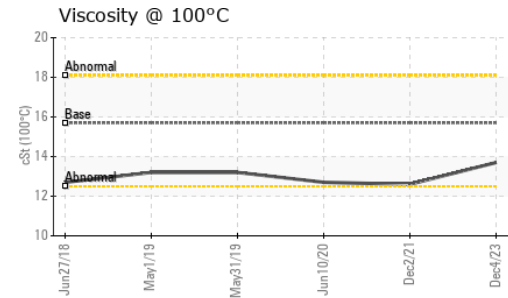
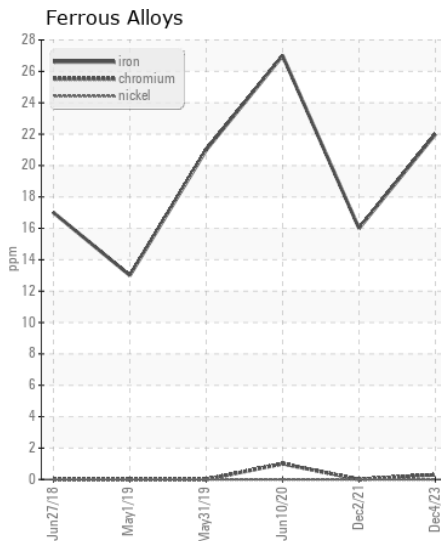
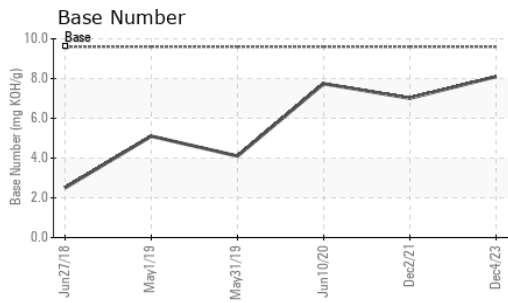
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	2	3
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	4
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	▲ 5.15
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.1	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.4</b>	11	14
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.8</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	---	---

## 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>	1	4
Boron	ppm	ASTM D5185m		<b>80</b>	50	105
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>16</b>	50	41
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>531</b>	722	684
Calcium	ppm	ASTM D5185m		<b>2002</b>	1694	1596
Phosphorus	ppm	ASTM D5185m	1200	<b>1179</b>	1144	936
Zinc	ppm	ASTM D5185m	1300	<b>1370</b>	1300	1125
Sulfur	ppm	ASTM D5185m	3200	<b>3889</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>23.0</b>	19	25
Base Number (BN)	mg KOH/g	ASTM D2896	9.6	<b>8.1</b>	7.01	7.74
Visc @ 100°C	cSt	ASTM D445	15.7	<b>13.7</b>	12.6	12.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PE0002176 **Received** : 12 Jan 2024  
**Lab Number** : 06059997 **Diagnosed** : 16 Jan 2024  
**Unique Number** : 10831379 **Diagnostician** : Don Baldrige  
**Test Package** : CONST ( Additional Tests: FT-IR, ICP, KV100, SCREEN, TBN )

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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)