



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

Area  
**DENNIS BOTTORFF**  
Machine Id  
**[DENNIS BOTTORFF] 001 569953-1**  
Component  
**Port Main Engine**  
Fluid  
**CHEVRON DELO 710 LS (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0041478</b>	MW0053908	MW0053824
Sample Date		Client Info		<b>01 Nov 2023</b>	01 Sep 2023	03 Jul 2023
Machine Age	hrs	Client Info		<b>39388</b>	38921	38787
Oil Age	hrs	Client Info		<b>39388</b>	38921	38787
Filter Age	hrs	Client Info		<b>39388</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	<b>19</b>	19	18
Chromium	ppm	ASTM D5185m	>8	<b>2</b>	2	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>2</b>	0	2
Lead	ppm	ASTM D5185m	>18	<b>4</b>	2	4
Copper	ppm	ASTM D5185m	>80	<b>14</b>	12	13
Tin	ppm	ASTM D5185m	>14	<b>3</b>	2	2
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

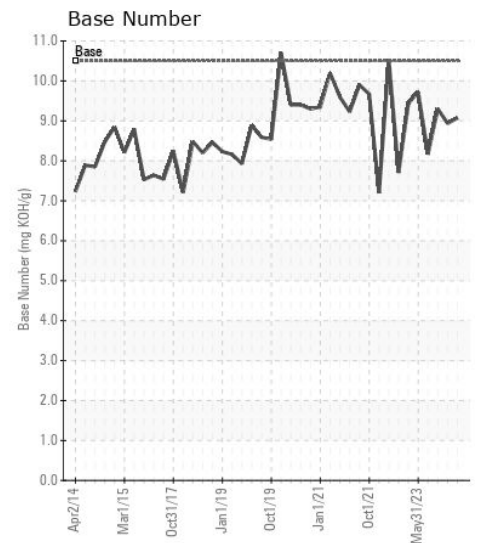
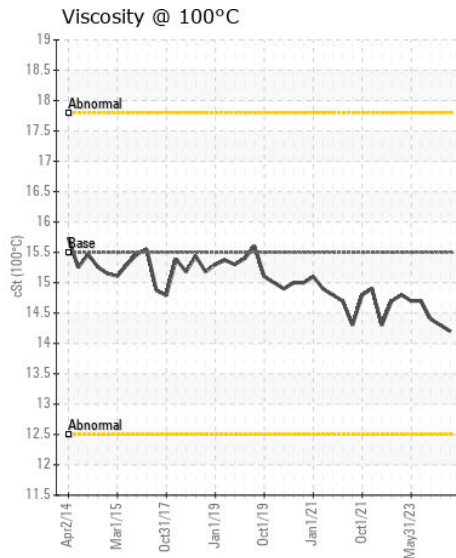
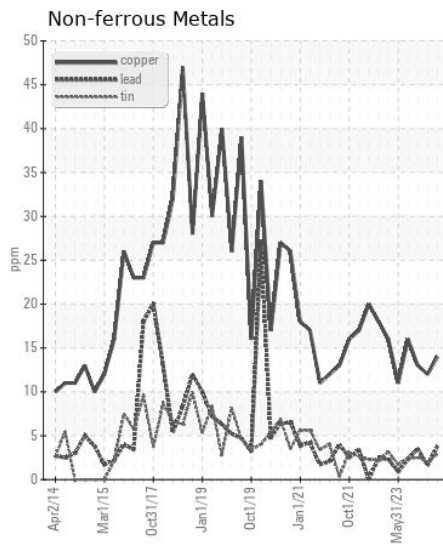
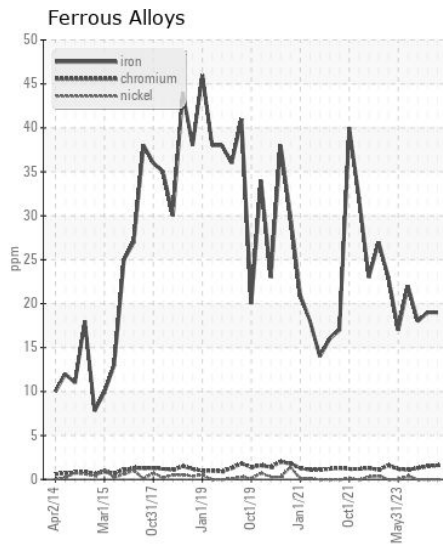
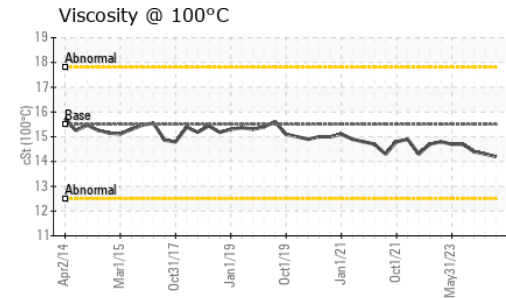
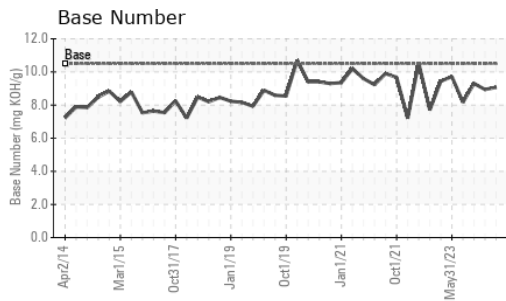
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>5</b>	6	5
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	1	3
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>1</b>	1	0.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.4</b>	9.3	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.3</b>	18.7	18.9
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	>0.1	<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	>75	<b>6</b>	5	6
Boron	ppm	ASTM D5185m		<b>66</b>	81	76
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>59</b>	60	62
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>98</b>	106	118
Calcium	ppm	ASTM D5185m		<b>3218</b>	3376	3249
Phosphorus	ppm	ASTM D5185m		<b>105</b>	0	115
Zinc	ppm	ASTM D5185m		<b>122</b>	113	132
Sulfur	ppm	ASTM D5185m		<b>2506</b>	2894	2837
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>10.4</b>	10.3	10.9
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	<b>9.07</b>	8.94	9.30
Visc @ 100°C	cSt	ASTM D445	15.5	<b>14.2</b>	14.3	14.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0041478 **Received** : 08 Jan 2024  
**Lab Number** : 06054090 **Diagnosed** : 09 Jan 2024  
**Unique Number** : 10820039 **Diagnostician** : Sean Felton  
**Test Package** : MAR 2

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)

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