



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINANTS	<b>NORMAL</b>
OIL CONDITION	<b>NORMAL</b>

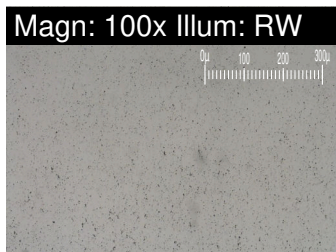
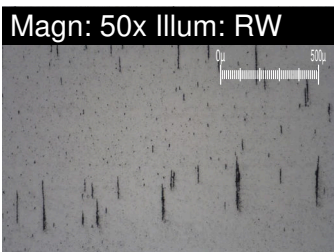
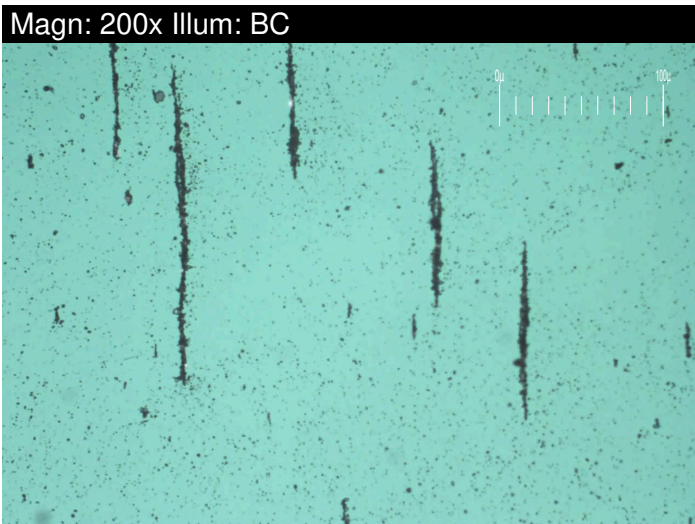
Area  
**Engine room**  
Machine Id  
**SSG #1 (S/N 1SS01190)**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON HP 15W40 (62 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.



Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0896729</b>	WC0896727	WC0896726
Sample Date		Client Info		<b>12 May 2024</b>	25 Mar 2024	10 Feb 2024
Machine Age		Client Info		<b>57543</b>	57048	56576
Oil Age		Client Info		<b>495</b>	472	500
Filter Age		Client Info		<b>495</b>	472	500
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
PQ		ASTM D8184*		<b>0</b>	0	0
Iron	ppm	ASTM D5185(m)	>80	<b>11</b>	13	13
Chromium	ppm	ASTM D5185(m)	>4	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1	1
Lead	ppm	ASTM D5185(m)	>15	<b>2</b>	2	2
Copper	ppm	ASTM D5185(m)	>230	<b>3</b>	4	16
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Large Particles		DR-Ferr*		<b>6.9</b>	8.4	12.1
Small Particles		DR-Ferr*		<b>8.6</b>	5.4	7.5
Total Particles		DR-Ferr*	>---	<b>15.5</b>	13.8	19.6
Large Particles Percentage	%	DR-Ferr*		<b>0</b>	21.7	23.5
Severity Index		DR-Ferr*		<b>12</b>	25	56
Ferrous Rubbing	Scale 0-10	ASTM D7684*		<b>3</b>	2	3
Ferrous Sliding	Scale 0-10	ASTM D7684*				
Ferrous Cutting	Scale 0-10	ASTM D7684*				
Ferrous Rolling	Scale 0-10	ASTM D7684*		<b>1</b>	1	1
Ferrous Break-in	Scale 0-10	ASTM D7684*				
Ferrous Spheres	Scale 0-10	ASTM D7684*				
Ferrous Black Oxides	Scale 0-10	ASTM D7684*		<b>1</b>	1	1
Ferrous Red Oxides	Scale 0-10	ASTM D7684*				
Ferrous Corrosive	Scale 0-10	ASTM D7684*		<b>1</b>		1
Ferrous Other	Scale 0-10	ASTM D7684*				
Nonferrous Rubbing	Scale 0-10	ASTM D7684*				
Nonferrous Sliding	Scale 0-10	ASTM D7684*				
Nonferrous Cutting	Scale 0-10	ASTM D7684*				
Nonferrous Rolling	Scale 0-10	ASTM D7684*				
Nonferrous Other	Scale 0-10	ASTM D7684*				

## CONTAMINANTS

There is no indication of any contamination in the oil.

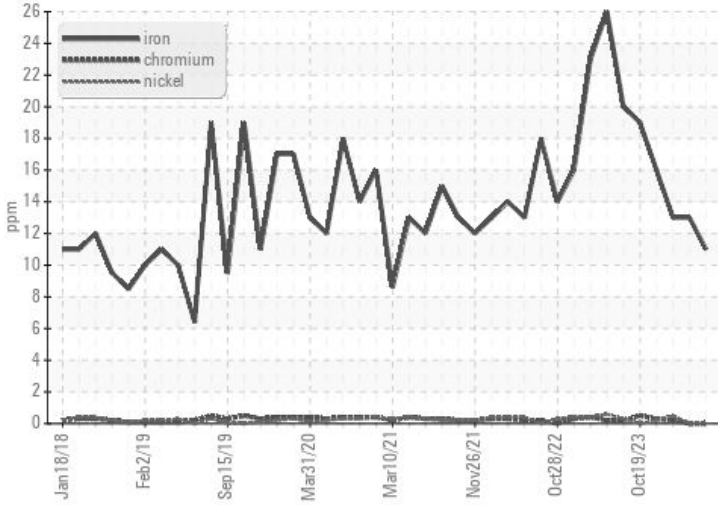
Silicon	ppm	ASTM D5185(m)	>25	<b>2</b>	2	4
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.1</b>	9.9	9.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>23.5</b>	23.5	22.7
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Carbonaceous Material	Scale 0-10	ASTM D7684*				
Sand/Dirt	Scale 0-10	ASTM D7684*		<b>1</b>	1	1
Fibres	Scale 0-10	ASTM D7684*				
Spheres	Scale 0-10	ASTM D7684*				
Other	Scale 0-10	ASTM D7684*		<b>2</b>	1	1

## OIL CONDITION

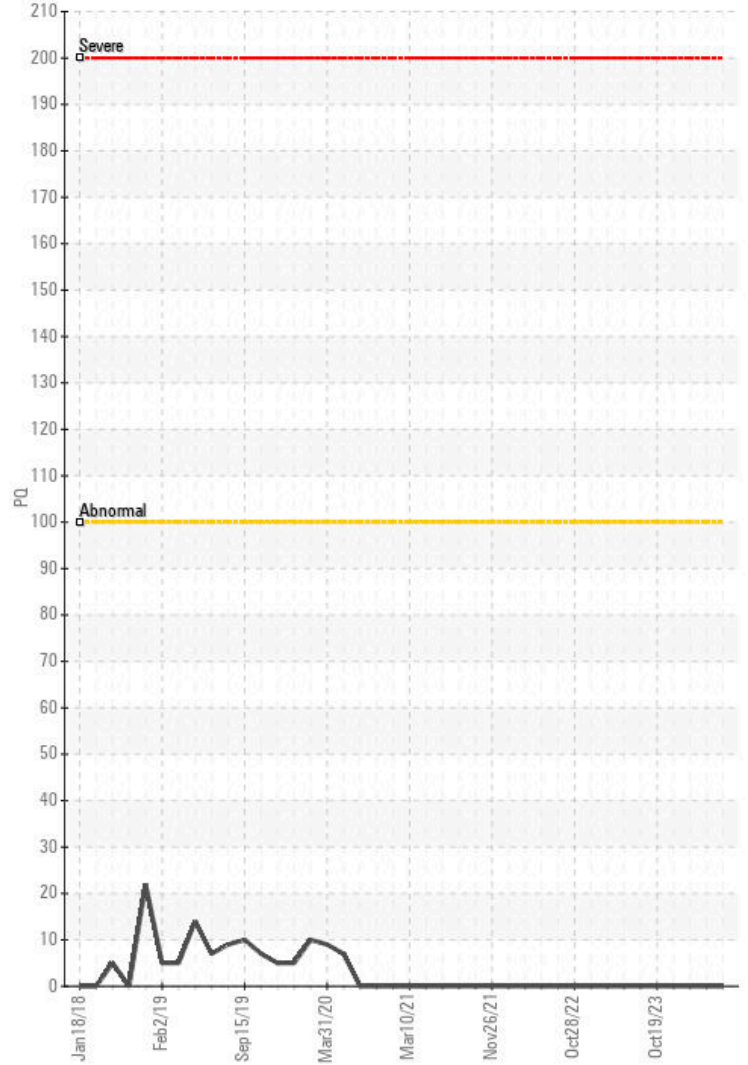
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		<b>1</b>	2	1
Boron	ppm	ASTM D5185(m)	0	<b>3</b>	3	5
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>68</b>	66	66
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	1010	<b>1135</b>	1092	1073
Calcium	ppm	ASTM D5185(m)	1070	<b>1188</b>	1165	1158
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1096</b>	1063	1070
Zinc	ppm	ASTM D5185(m)	1270	<b>1342</b>	1301	1292
Sulfur	ppm	ASTM D5185(m)	2060	<b>2608</b>	2498	2664
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>23.3</b>	23.6	21.5
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	<b>10.52</b>	10.47	10.04
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	<b>15.6</b>	15.6	15.2
Lubricant Degradation	Scale 0-10	ASTM D7684*				

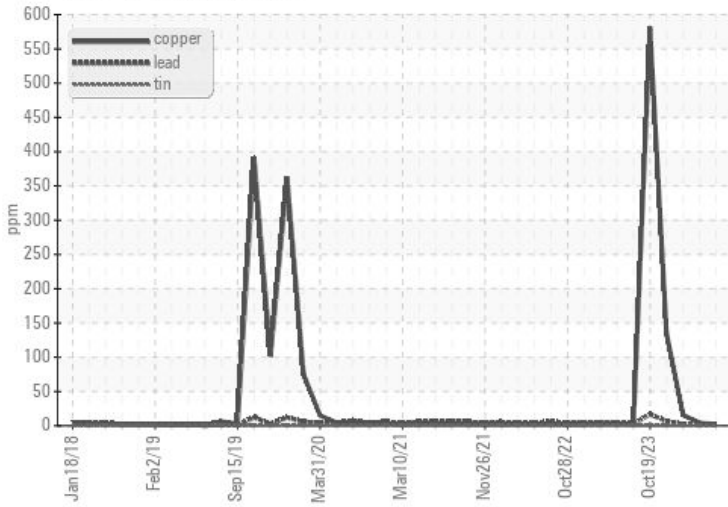
### Ferrous Alloys



### PQ



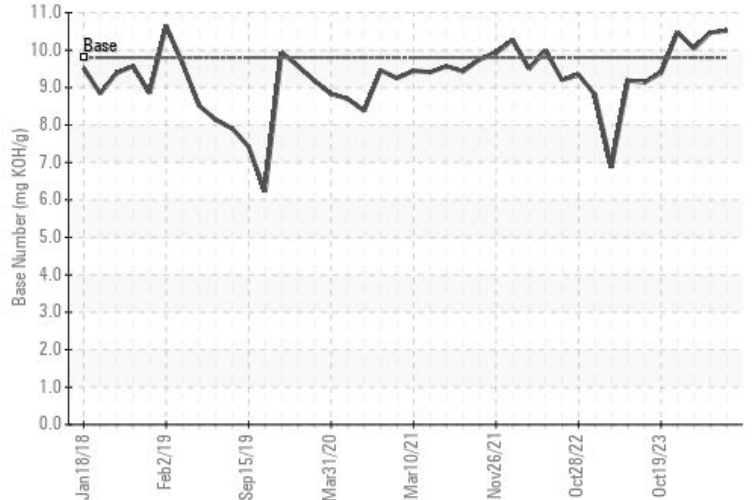
### Non-ferrous Metals



### Viscosity @ 100°C



### Base Number



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0896729  
**Lab Number** : 02637356  
**Unique Number** : 5786518  
**Test Package** : MAR 3

**CANADIAN COAST GUARD**  
 CCGS GRIFFON, PO BOX 1000, 401 KING ST.W  
 Prescott, ON  
 CA K6V 5T3  
 Contact: Laurie Bosley  
 Laurie.Bosley@dfo-mpo.gc.ca

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

F: (519)383-1994

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