



Area  
**(ECE193)**  
Machine Id  
**11163**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (8 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0089617</b>	GFL0089626	GFL0089641
Sample Date		Client Info		<b>12 Jul 2024</b>	24 Apr 2024	17 Jan 2024
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</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>ATTENTION</b>	ATTENTION	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>34</b>	28	20
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>3</b>	4	2
Lead	ppm	ASTM D5185m	>40	<b>3</b>	5	2
Copper	ppm	ASTM D5185m	>330	<b>2</b>	3	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	2	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

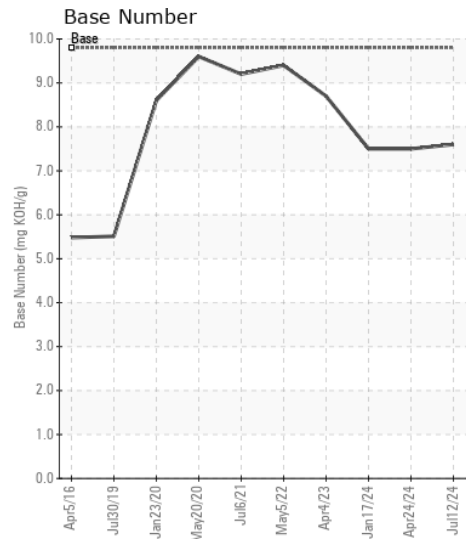
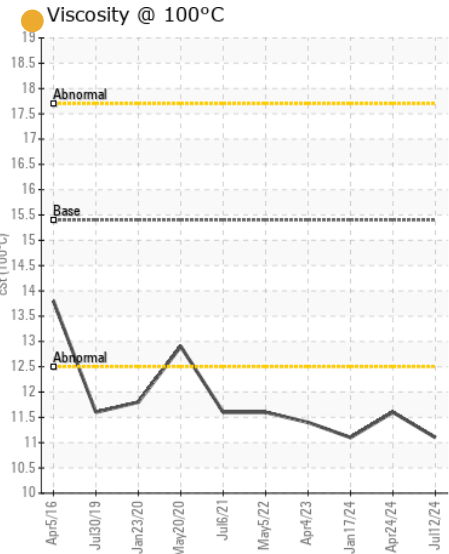
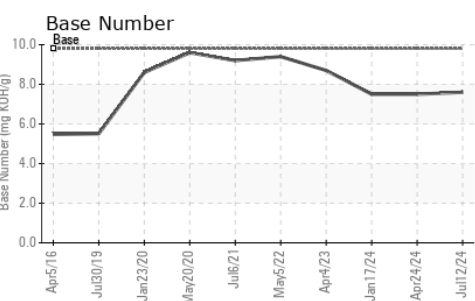
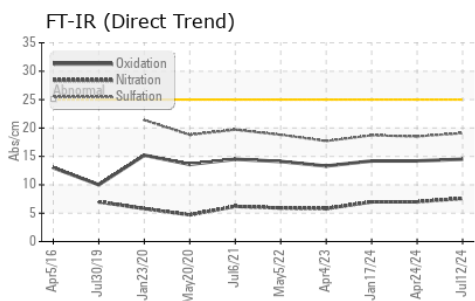
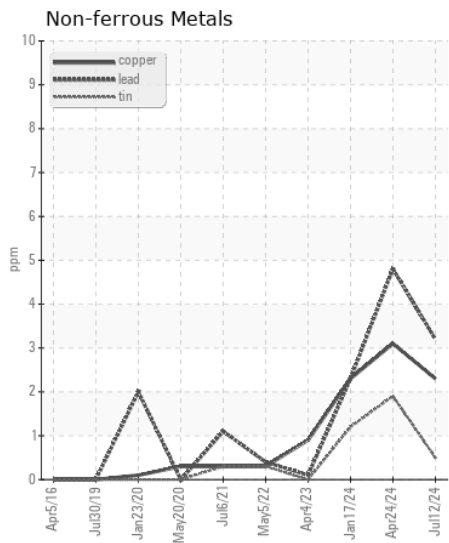
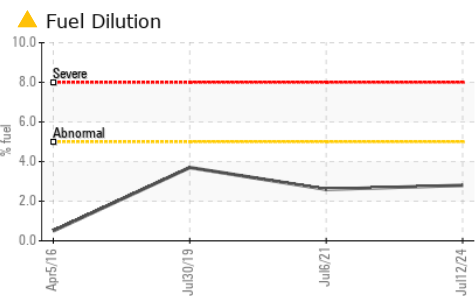
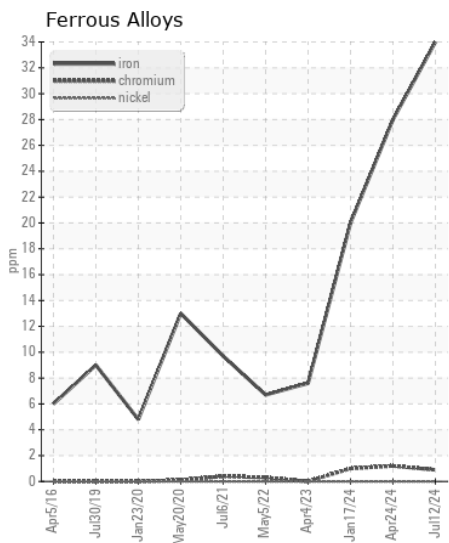
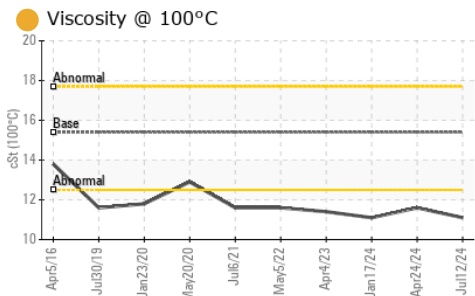
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	7	4
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	4	1
Fuel	%	ASTM D3524	>5	<b>▲ 2.8</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>0.4</b>	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.6</b>	7.0	7.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.1</b>	18.5	18.7
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		<b>0</b>	<1	2
Boron	ppm	ASTM D5185m	0	<b>11</b>	11	10
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>64</b>	69	53
Manganese	ppm	ASTM D5185m	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>910</b>	977	938
Calcium	ppm	ASTM D5185m	1070	<b>1088</b>	1138	1006
Phosphorus	ppm	ASTM D5185m	1150	<b>881</b>	1153	986
Zinc	ppm	ASTM D5185m	1270	<b>1218</b>	1276	1143
Sulfur	ppm	ASTM D5185m	2060	<b>2671</b>	3099	2840
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.5</b>	14.2	14.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.6</b>	7.5	7.5
Visc @ 100°C	cSt	ASTM D445	15.4	<b>● 11.1</b>	● 11.6	● 11.1



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0089617 **Received** : 16 Jul 2024  
**Lab Number** : 06237623 **Tested** : 18 Jul 2024  
**Unique Number** : 11126457 **Diagnosed** : 18 Jul 2024 - Don Baldrige  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 732 - Thomaston Hauling**  
 2616 Waynmanville Road  
 Thomaston, GA  
 US 30286  
 Contact: Michael Taft

Certificate L2367  
 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)