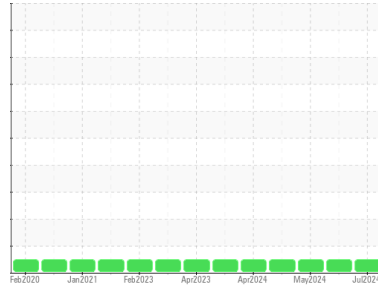




# OIL ANALYSIS REPORT

Area  
**(ECE744)**  
 Machine Id  
**12048**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (8 GAL)**

### Sample Rating Trend



**NORMAL**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### 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.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0111531</b>	GFL0111527	GFL0111575
Sample Date	Client Info		<b>01 Jul 2024</b>	13 Jun 2024	01 May 2024
Machine Age	mls	Client Info	<b>0</b>	0	0
Oil Age	mls	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<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

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	<b>41</b>	38	24
Chromium	ppm	ASTM D5185m >20	<b>2</b>	2	<1
Nickel	ppm	ASTM D5185m >5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m >20	<b>11</b>	10	6
Lead	ppm	ASTM D5185m >40	<b>3</b>	2	<1
Copper	ppm	ASTM D5185m >330	<b>3</b>	2	2
Tin	ppm	ASTM D5185m >15	<b>1</b>	1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>8</b>	4	3
Barium	ppm	ASTM D5185m 0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m 60	<b>60</b>	64	55
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	1	1
Magnesium	ppm	ASTM D5185m 1010	<b>739</b>	795	753
Calcium	ppm	ASTM D5185m 1070	<b>1386</b>	1340	1203
Phosphorus	ppm	ASTM D5185m 1150	<b>916</b>	931	866
Zinc	ppm	ASTM D5185m 1270	<b>1124</b>	1143	1066
Sulfur	ppm	ASTM D5185m 2060	<b>3005</b>	2491	2889

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>11</b>	11	6
Sodium	ppm	ASTM D5185m	<b>6</b>	4	4
Potassium	ppm	ASTM D5185m >20	<b>11</b>	11	8

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>1.4</b>	1.3	1.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>12.6</b>	11.7	11.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>25.5</b>	24.5	24.0

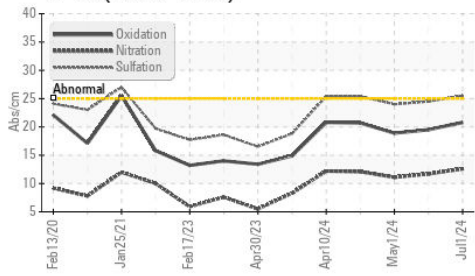
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>20.8</b>	19.5	18.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>4.5</b>	5.5	5.4

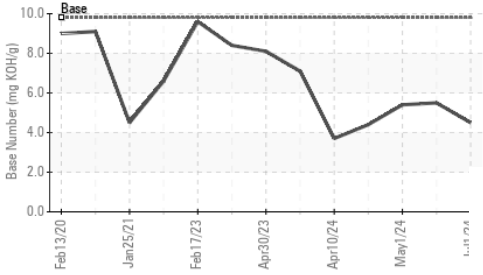


# OIL ANALYSIS REPORT

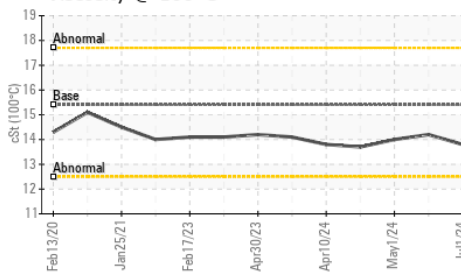
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

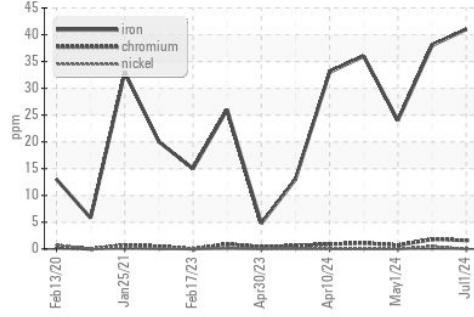


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

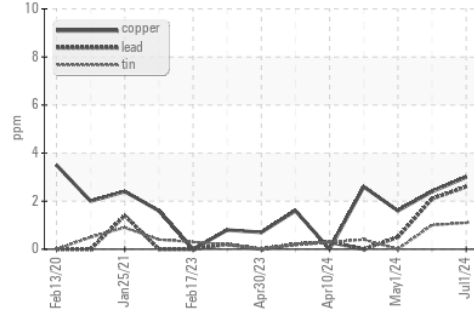
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.8	14.2

## GRAPHS

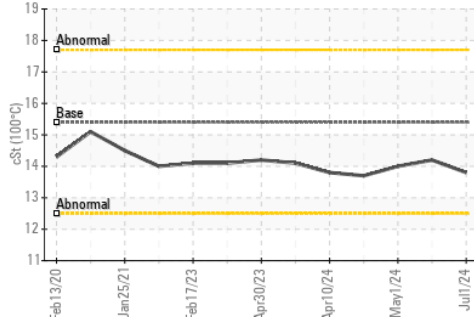
Ferrous Alloys



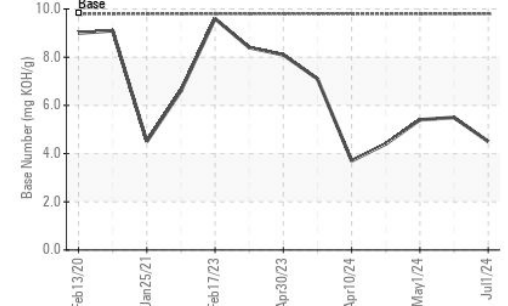
Non-ferrous Metals



Viscosity @ 100°C



Base Number



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0111531      **Received** : 08 Jul 2024  
**Lab Number** : 06229843      **Tested** : 09 Jul 2024  
**Unique Number** : 11113336      **Diagnosed** : 09 Jul 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 073 - Warner Robins - Transwaste**  
 155 Story Road  
 Warner Robins, GA  
 US 31093  
 Contact: JOSH MALONEY  
 jmaloney@gflenv.com

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)