

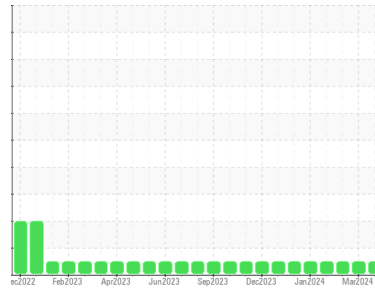


# OIL ANALYSIS REPORT



Area  
**(H916995) {UNASSIGNED}**  
 Machine Id  
**913017**  
 Component  
**Front Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (40 QTS)**

## 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>GFL0098892</b>	GFL0099024	GFL0098861
Sample Date	Client Info		<b>11 Apr 2024</b>	21 Mar 2024	01 Mar 2024
Machine Age	hrs	Client Info	<b>4382</b>	4050	4050
Oil Age	hrs	Client Info	<b>4050</b>	3623	3623
Oil Changed	Client Info		<b>N/A</b>	Changed	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>15</b>	19	6
Chromium	ppm	ASTM D5185m >20	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m >5	<b>4</b>	4	<1
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	1	3
Lead	ppm	ASTM D5185m >40	<b>1</b>	0	<1
Copper	ppm	ASTM D5185m >330	<b>3</b>	8	2
Tin	ppm	ASTM D5185m >15	<b>2</b>	0	<1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>57</b>	56	54
Manganese	ppm	ASTM D5185m 0	<b>1</b>	<1	0
Magnesium	ppm	ASTM D5185m 1010	<b>838</b>	933	892
Calcium	ppm	ASTM D5185m 1070	<b>1059</b>	1306	1043
Phosphorus	ppm	ASTM D5185m 1150	<b>986</b>	1045	979
Zinc	ppm	ASTM D5185m 1270	<b>1113</b>	1312	1149
Sulfur	ppm	ASTM D5185m 2060	<b>2988</b>	3567	3125

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>5</b>	3	6
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	2	3
Potassium	ppm	ASTM D5185m >20	<b>2</b>	3	<1

## INFRA-RED

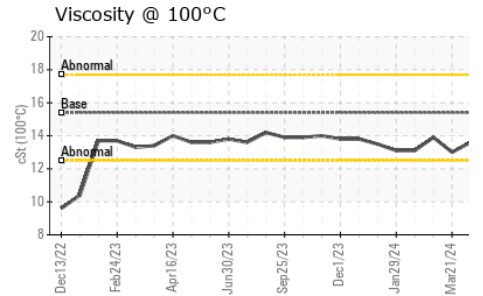
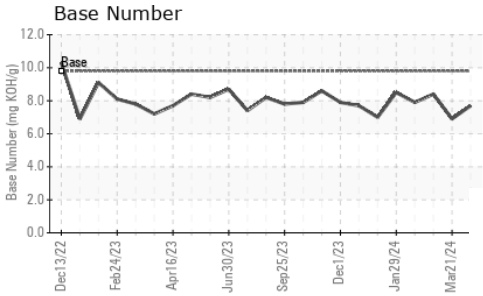
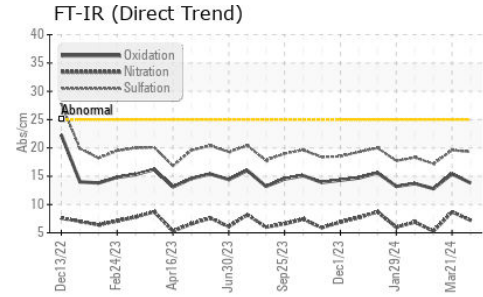
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.8</b>	0.5	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.2</b>	8.7	5.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.3</b>	19.6	17.2

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.8</b>	15.4	12.8
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.7</b>	6.9	8.4



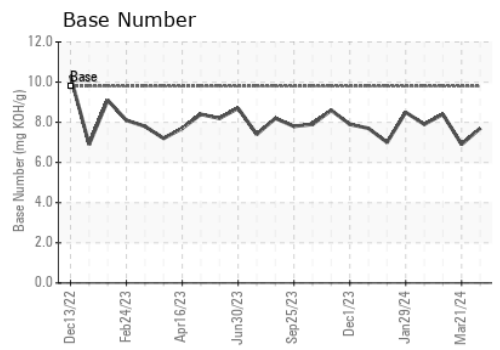
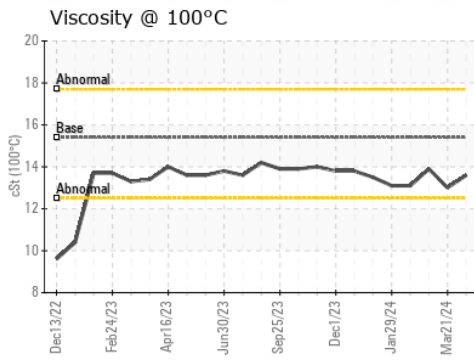
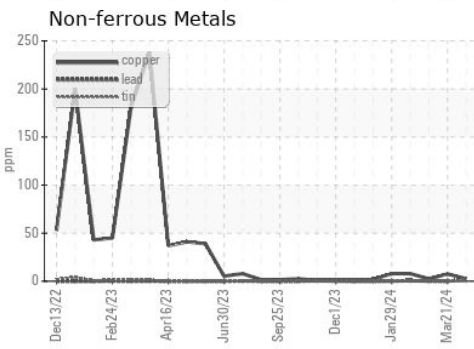
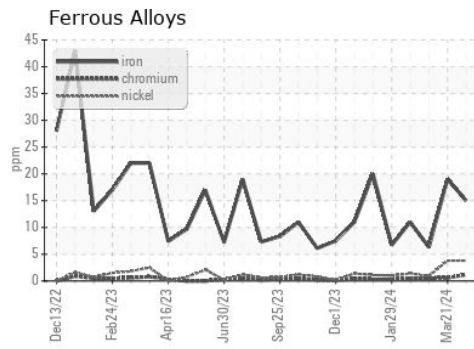
# OIL ANALYSIS REPORT



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	13.6	13.0

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0098892  
**Lab Number** : 06152730  
**Unique Number** : 10982808  
**Test Package** : FLEET  
**Received** : 18 Apr 2024  
**Tested** : 18 Apr 2024  
**Diagnosed** : 18 Apr 2024 - Wes Davis

**GFL Environmental - 084 - Clarksville**  
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 Clarksville, TN  
 US 37042  
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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)