

# **OIL ANALYSIS REPORT**

Sample Rating Trend







## Machine Id 201113 Component

**Diesel Engine** 

PETRO CANADA DURON SHP 15W40 (--- GAL)

## 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

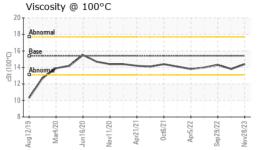
### **Fluid Condition**

The condition of the oil is acceptable for the time in service.

āAL)		шg2019 Mar2	020 Jun2020 Nov2020	Apr2021 Oct2021 Apr2022 Sep.	2022 Nov202				
SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2			
Sample Number		Client Info		GFL0101088	GFL0085251	GFL0059413			
Sample Date		Client Info		28 Nov 2023	12 Jul 2023	29 Sep 2022			
Machine Age	kms	Client Info		181960	175580	8438			
Oil Age	kms	Client Info		0	0	0			
Oil Changed		Client Info		Changed	Changed	Changed			
Sample Status				NORMAL	NORMAL	NORMAL			
CONTAMINA	TION	method	limit/base	current	history1	history2			
Fuel		WC Method	>5	<1.0	<1.0	<1.0			
Water		WC Method	>0.2	NEG	NEG	NEG			
Glycol		WC Method		NEG	NEG	NEG			
WEAR META	LS	method	limit/base	current	history1	history2			
Iron	ppm	ASTM D5185(m)	>100	12	16	9			
Chromium	ppm	ASTM D5185(m)	>20	<1	1	<1			
Nickel	ppm	ASTM D5185(m)	>4	0	<1	0			
Titanium	ppm	ASTM D5185(m)		0	0	<1			
Silver	ppm	ASTM D5185(m)	>3	<1	0	0			
Aluminum	ppm	ASTM D5185(m)	>20	3	4	4			
Lead	ppm	ASTM D5185(m)	>40	<1	0	0			
Copper	ppm	ASTM D5185(m)	>330	2	4	2			
Tin	ppm	ASTM D5185(m)	>15	0	0	0			
Antimony	ppm	ASTM D5185(m)		0	0	<1			
Vanadium ppm		ASTM D5185(m)		0	0	0			
Beryllium	ppm	ASTM D5185(m)		0	0	0			
Cadmium ppm		ASTM D5185(m)		0	0	0			
ADDITIVES		method	limit/base	current	history1	history2			
Boron	ppm	ASTM D5185(m)	0	2	3	3			
Barium	ppm	ASTM D5185(m)	0	<1	0	0			
Molybdenum	ppm	ASTM D5185(m)	60	59	60	58			
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1			
Magnesium	ppm	ASTM D5185(m)	1010	969	994	929			
Calcium	ppm	ASTM D5185(m)	1070	1060	1063	1069			
Phosphorus	ppm	ASTM D5185(m)	1150	1010	1047	1069			
Zinc	ppm	ASTM D5185(m)	1270	1176	1202	1178			
Sulfur	ppm	ASTM D5185(m)	2060	2469	2388	2610			
Lithium	ppm	ASTM D5185(m)		<1	<1	<1			
CONTAMINAL	NTS	method	limit/base	current	history1	history2			
Silicon	ppm	ASTM D5185(m)	>25	5	6	4			
Sodium	ppm	ASTM D5185(m)		2	2	2			
Potassium ppm		ASTM D5185(m)	>20	1	4	4			
INFRA-RED		method	limit/base	current	history1	history2			
Soot %	%	ASTM D7844*	>3	0.3	0.4	0			
Nitration	Abs/cm	ASTM D7624*	>20	7.4	9.1	7.3			
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.1	20.8	19.2			



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FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.4	17.6	15.2
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water scalar		Visual*		NEG	NEG	NEG
FLUID PROPE	ERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	14.4	13.8	14.3

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**CALA** ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number : 5684908 Test Package : MOB 1

: GFL0101088 : 02599828

Received Diagnosed

: 30 Nov 2023 : 30 Nov 2023

Diagnostician : Wes Davis

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 201 - Pick LQ 1070 Toy Ave, Pickering, ON CA L1W 3P1 Contact: Shane Cater scater@gflenv.com

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.

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