

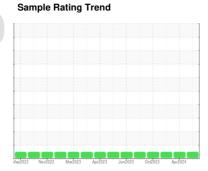
OIL ANALYSIS REPORT



(62A1N8Y) MONTGOMERY **MACK 428089**

Diesel Engine

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





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

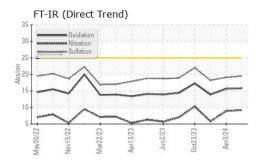
Fluid Condition

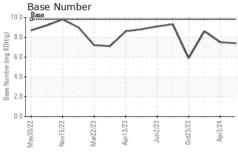
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

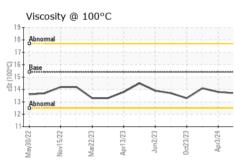
SAMPLE INFORM	1AT <u>ION</u>	method	limit/base		history1	history2
Sample Number		Client Info		GFL0080696	GFL0092434	GFL0092359
Sample Date		Client Info		11 Apr 2024	03 Apr 2024	21 Nov 2023
Machine Age	mls	Client Info		303471	13845	12962
Oil Age	mls	Client Info		303471	13845	12962
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS	5	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	13	14	3
Chromium	ppm	ASTM D5185m	>20	<1	0	0
Nickel	ppm	ASTM D5185m	>5	<1	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	<1
Lead	ppm	ASTM D5185m	>40	<1	0	<1
Copper	ppm	ASTM D5185m	>330	4	4	<1
Tin	ppm		>15	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	3	5	10
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	60	62	63
Manganese	ppm	ASTM D5185m	0	<1	0	0
Magnesium	ppm	ASTM D5185m	1010	905	1034	1079
Calcium	ppm	ASTM D5185m	1070	1079	1184	1212
Phosphorus	ppm	ASTM D5185m	1150	1002	1139	1211
Zinc	ppm	ASTM D5185m	1270	1184	1352	1523
Sulfur	ppm	ASTM D5185m	2060	3474	4099	3799
				0474		
CONTAMINANT	ΓS	method	limit/base	current	history1	history2
	ΓS ppm		limit/base >25		history1	history2
CONTAMINANT			mmubacc	current		
CONTAMINANT	ppm	ASTM D5185m	mmubacc	current	6	4
CONTAMINANT Silicon Sodium	ppm ppm	ASTM D5185m ASTM D5185m	>25	current 7 5	6 2	4
CONTAMINANT Silicon Sodium Potassium INFRA-RED	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	>25	current 7 5 19	6 2 2	4 1 <1
CONTAMINANT Silicon Sodium Potassium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method	>25 >20 limit/base	current 7 5 19 current	6 2 2 history1	4 1 <1 history2
CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844	>25 >20 limit/base >4	current 7 5 19 current 0.6	6 2 2 history1 0.6	4 1 <1 <1 history2 0.3
CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m Method *ASTM D7844 *ASTM D7624	>25 >20 limit/base >4 >20	current 7 5 19 current 0.6 9.2	6 2 2 2 history1 0.6 8.9	4 1 <1 <1 history2 0.3 5.8
CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m Method *ASTM D7844 *ASTM D7624 *ASTM D7415	>25 >20 limit/base >4 >20 >30	current 7 5 19 current 0.6 9.2 19.5	6 2 2 history1 0.6 8.9 19.1	4 1 <1 history2 0.3 5.8 18.2



OIL ANALYSIS REPORT



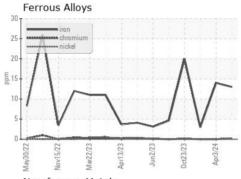


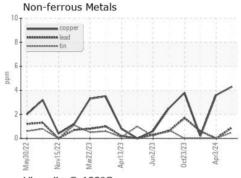


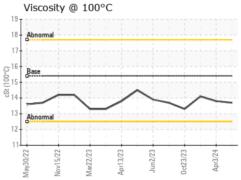
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

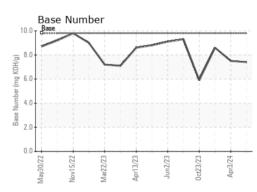
FLUID PROPI	ERTIES	method				history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.7	13.8	14.1

GRAPHS













Certificate 12367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No.

: GFL0080696 Lab Number : 06150989 Unique Number : 10981067

Received : 16 Apr 2024 **Tested** Diagnosed

: 17 Apr 2024 : 17 Apr 2024 - Wes Davis

GFL Environmental - 955 - Montgomery 1121 Wilbanks St

Montgomery, AL US 36108 Contact: LISA REEVES

Test Package : FLEET 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)

Report Id: GFL955 [WUSCAR] 06150989 (Generated: 04/17/2024 16:51:50) Rev: 1

Submitted By: Lisa Reeves

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