

OIL ANALYSIS REPORT









Machine Id 913115 Component

Diesel Engine

PETRO CANADA DURO

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

All component wear rates are normal.

Contamination

Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material.

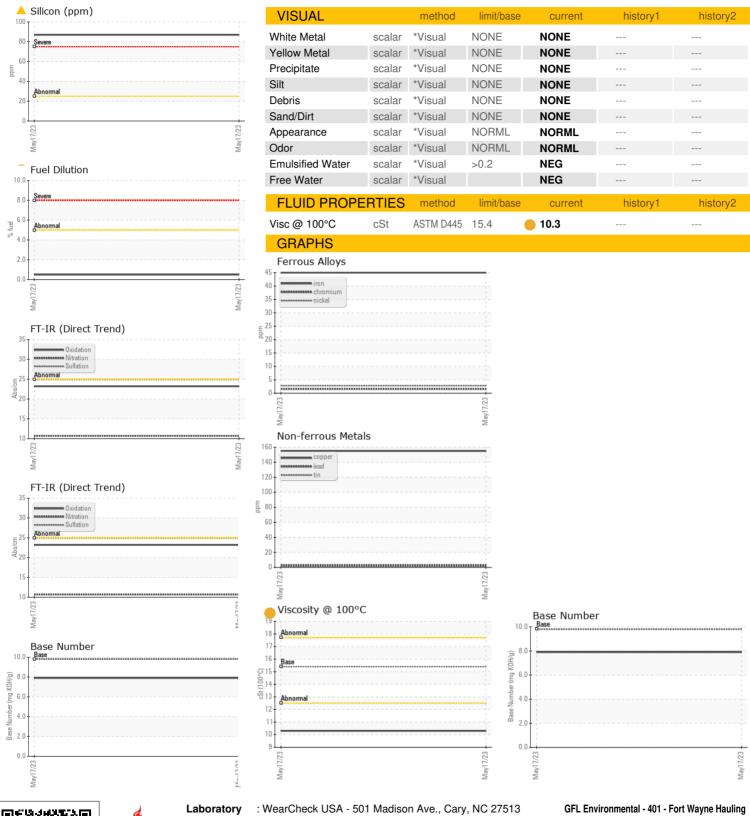
Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

N SHP 15W40 (28	GAL)			May2023		
SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0071034		
Sample Date		Client Info		17 May 2023		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				ABNORMAL		
CONTAMINATION	ON	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS	3	method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>120	45		
Chromium	ppm	ASTM D5185m	>20	2		
Nickel	ppm	ASTM D5185m	>5	3		
Titanium	ppm	ASTM D5185m	>2	<1		
Silver	ppm	ASTM D5185m	>2	1		
Aluminum	ppm	ASTM D5185m	>20	5		
Lead	ppm	ASTM D5185m	>40	2		
Copper	ppm	ASTM D5185m	>330	155		
Tin	ppm	ASTM D5185m	>15	4		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	204		
Barium	ppm	ASTM D5185m	0	0		
Molybdenum	ppm	ASTM D5185m	60	122		
Manganese	ppm	ASTM D5185m	0	5		
Magnesium	ppm	ASTM D5185m	1010	739		
Calcium	ppm	ASTM D5185m	1070	1586		
Phosphorus	ppm	ASTM D5185m	1150	740		
Zinc	ppm	ASTM D5185m	1270	903		
Sulfur	ppm	ASTM D5185m	2060	2537		
CONTAMINANT	ΓS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<u> </u>		
Sodium	ppm	ASTM D5185m		3		
Potassium	ppm	ASTM D5185m	>20	4		
Fuel	%	ASTM D3524	>5	0.5		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>4	0.7		
Nitration	Abs/cm	*ASTM D7624	>20	10.7		
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.9		
FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.2		
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.9		
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Certificate 12367

Sample No.

: GFL0071034 Lab Number : 05851603

Received **Tested** Unique Number : 10480958

: 19 May 2023 : 23 May 2023 Diagnosed : 23 May 2023 - Jonathan Hester 4429 ALLEN MARTIN DR FORT WAYNE, IN US 46806 Contact: Zachory Roehm

Test Package: FLEET (Additional Tests: FuelDilution, PercentFuel) To discuss this sample report, contact Customer Service at 1-800-237-1369.

 st - 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)

F: Submitted By: See also GFL401 - ZACHORY ROEHM

T:

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