WEAR CONTAMINATION FLUID CONDITION

NORMAL SEVERE ABNORMAL

Machine Id

195 DEERFIELD RD

Component Diesel Engine							
PETRO CANADA XR 4 SAE 15W40 (LTR)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.	Sample Number		Client Info		WC0910624		
	Sample Date		Client Info		25 Mar 2024		
	Machine Age	hrs	Client Info		0		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		N/A		
	Filter Changed		Client Info		N/A		
	Sample Status				SEVERE		
WEAR	Iron	ppm	ASTM D5185(m)	>100	14		
All component wear rates are normal. We have assumed that this component is not breaking in (age of component not reported).	Chromium	ppm	ASTM D5185(m)		0		
	Nickel	ppm	ASTM D5185(m)		0		
	Titanium	ppm	ASTM D5185(m)		<1		
	Silver	ppm	ASTM D5185(m)	>3	0		
	Aluminum	ppm	ASTM D5185(m)	>20	2		
	Lead	ppm	ASTM D5185(m)	>40	4		
	Copper	ppm	ASTM D5185(m)	>330	23		
	Tin	ppm	ASTM D5185(m)	>15	2		
	Vanadium	ppm	ASTM D5185(m)		0		
CONTAMINATION	Silicon	nnm	ASTM D5185(m)	. 25	▲ 92		
Fuel content negligible. High concentration of dirt present in the oil.	Potassium	ppm	ASTM D5185(m)	>25 >20	3		
	Fuel	%	ASTM D7593*	>5	0.8		
	Water	70	WC Method	-	NEG		
	Glycol		WC Method	70.2	NEG		
	Soot %	%	ASTM D7844*	>3	0		
	Nitration	Abs/cm	ASTM D7624*	>20	5.0		
	Sulfation	Abs/.1mm	ASTM D7415*	>30	15.6		
	Emulsified Water	scalar	Visual*	>0.2	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		6		
Viscosity of sample indicates oil is within SAE 30 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The oil is no longer serviceable due to the presence of contaminants.	Boron	ppm	ASTM D5185(m)	1	162		
	Barium	ppm	ASTM D5185(m)		2		
	Molybdenum	ppm	ASTM D5185(m)		73		
	Manganese	ppm	ASTM D5185(m)		0		
	Magnesium	ppm	ASTM D5185(m)	10	413		
	Calcium	ppm	ASTM D5185(m)	3032	1680		
	Phosphorus	ppm	ASTM D5185(m)	1054	706		
	Zinc	ppm	ASTM D5185(m)	1332	793		
	Sulfur	ppm	ASTM D5185(m)	3985	2704		

Oxidation

7.9

10.4





CALA ISO 17025:2017 Accredited

Laboratory

Laboratory Sample No.

: WC0910624 Lab Number : 02625603 Unique Number : 5750722

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received **Tested**

: 01 Apr 2024 : 02 Apr 2024 Diagnosed

: 02 Apr 2024 - Kevin Marson Test Package: MOB 1 (Additional Tests: FuelDilution, PercentFuel)

NORTHERN GENERATOR CO. LTD. 80 ASHBRIDGE CIRCLE,, UNIT #1 & 2 WOODBRIDGE, ON CA L4L 3R5

Contact: Selome Afework selome@northerngenerator.com T: (905)264-9744

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.