

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



4175 14TH AVENUE UNIT #2

Component 2 Diesel Engine

PETRO CANADA XR 4 SAE 15W40 (24 LTR)

Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. 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.

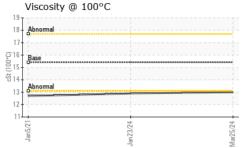
Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

K)	Jan2021 Jan2024 Mar2024						
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		WC0910625	WC0897578	WC0515876	
Sample Date		Client Info		25 Mar 2024	23 Jan 2024	05 Jan 2021	
Machine Age	hrs	Client Info		0	0	0	
Oil Age	hrs	Client Info		0	0	0	
Oil Changed		Client Info		N/A	N/A	N/A	
Sample Status				NORMAL	NORMAL	NORMAL	
CONTAMINATION	J	method	limit/base	current	history1	history2	
Fuel		WC Method	>2.1	<1.0	1.1	<1.0	
Water		WC Method	>0.21	NEG	NEG	NEG	
Glycol		WC Method		NEG	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>51	2	2	2	
Chromium	ppm	ASTM D5185(m)	>11	0	0	0	
Nickel	ppm	ASTM D5185(m)	>5	0	0	0	
Titanium	ppm	ASTM D5185(m)		0	0	0	
Silver	ppm	ASTM D5185(m)	>3	0	0	0	
Aluminum	ppm	ASTM D5185(m)	>31	<1	<1	1	
Lead	ppm	ASTM D5185(m)	>26	<1	<1	<1	
Copper	ppm	ASTM D5185(m)	>26	1	1	1	
Tin	ppm	ASTM D5185(m)	>4	0	0	<1	
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	<1	
ADDITIVES		method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	1	41	41	54	
Barium	ppm	ASTM D5185(m)	1	0	0	0	
Molybdenum	ppm	ASTM D5185(m)	1	62	62	69	
Manganese	ppm	ASTM D5185(m)		0	0	<1	
Magnesium	ppm	ASTM D5185(m)	10	928	930	953	
Calcium	ppm	ASTM D5185(m)	3032	1066	1074	1116	
Phosphorus	ppm	ASTM D5185(m)	1054	1017	1018	1023	
Zinc	ppm	ASTM D5185(m)		1166	1173	1238	
Sulfur	ppm	ASTM D5185(m)	3985	2760	2778	2929	
Lithium	ppm	ASTM D5185(m)		<1	<1	<1	
CONTAMINANTS		method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>22	6	6	4	
Sodium	ppm	ASTM D5185(m)	>31	1	1	2	
Potassium	ppm	ASTM D5185(m)	>20	0	0	<1	
INFRA-RED		method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0	0	0	
Nitration	Abs/cm	ASTM D7624*	>20	4.5	4.5	4.5	
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.4	18.4	18.9	



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/isc @ 100°C	cSt	ASTM D7279(m)	15.4	13.0	12.9	12.7
GRAPHS						
Iron (ppm)				Lead (ppm))	
Severe				Severe		
-				80		
				60		
Abnormal				40+		
Abnormal				Abnormal 20		
-	4		4	0	*	
Jan5/21	Jan23/24		Mar25/24	Jan5/21	Jan23/24	
Aluminum (ppm			≥	Chromium		
Severe	.,			25 7 7	(PP)	
-				Severe		
Abnormal				E 15		
				Abnormal		
				5		
	-		-	0	**	
Jan5/21	Jan23/24		Mar25/24	Jan5/21	Jan23/24	
Copper (ppm)	L B		×	Silicon (ppn		
				35 Severe	··· <i>)</i>	
Severe		***************************************		30+		
				Abnormal		
				E 20 15		
Abnormal				5-		
				0		
Jan5/21	Jan23/24		Mar25/24	Jan5/21	Jan23/24	
Viscosity @ 100			×	Soot %	٦	
T 7				6.0 T		
Abnormal				5.0 Severe		
Base				4.0 H3.0 + Abnormal		
				2.0 Abnormal		
Abnormal			_	1.0		
İ <u>:</u>				0.0		
Jan5/21	Jan23/24		Mar25/24	Jan5/21	Jan23/24	
7	Jar		Ma	7	Jar	



CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

Test Package : MOB 1

: WC0910625

Lab Number : 02625606 Unique Number : 5750725

Validity of results and interpretation are based on the sample and information as supplied.

Received : 01 Apr 2024 **Tested** : 01 Apr 2024

Diagnosed : 01 Apr 2024 - Kevin Marson

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 NORTHERN GENERATOR CO. LTD. 80 ASHBRIDGE CIRCLE,, UNIT #1 & 2

WOODBRIDGE, ON CA L4L 3R5

Contact: Selome Afework selome@northerngenerator.com

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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.