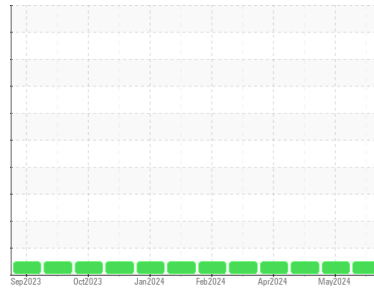




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
BD SHOP
 Machine Id
300180
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (40 LTR)

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0926287	WC0926301	WC0926321
Sample Date	Client Info			16 Jun 2024	12 May 2024	02 May 2024
Machine Age	kms	Client Info		301298	287493	281203
Oil Age	kms	Client Info		24124	37324	31034
Oil Changed	Client Info			Not Chngd	Not Chngd	N/A
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	<1.0	<1.0
Water	WC Method	>0.2		NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	23	18	16
Chromium	ppm	ASTM D5185(m)	>20	1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	12	11	10
Lead	ppm	ASTM D5185(m)	>40	0	0	0
Copper	ppm	ASTM D5185(m)	>330	3	7	2
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

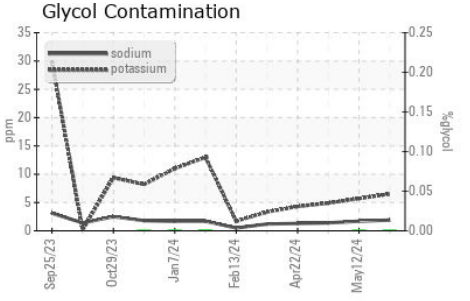
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	2	3	4	4
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	61	63	60
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	974	1012	980
Calcium	ppm	ASTM D5185(m)	1050	1078	1071	1055
Phosphorus	ppm	ASTM D5185(m)	995	973	1012	1006
Zinc	ppm	ASTM D5185(m)	1180	1198	1200	1169
Sulfur	ppm	ASTM D5185(m)	2600	2474	2568	2531
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	5	4	5
Sodium	ppm	ASTM D5185(m)		2	2	1
Potassium	ppm	ASTM D5185(m)	>20	6	6	5
Glycol	%	ASTM D7922*		0.0	0.0	NEG

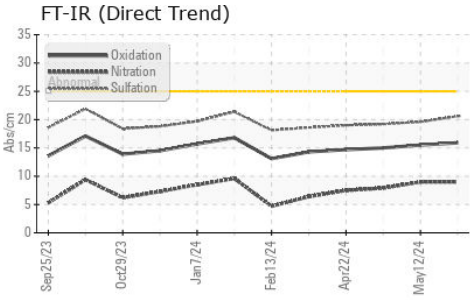
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.7	0.5	0.4
Nitration	Abs/cm	ASTM D7624*	>20	9.0	9.0	7.9
Nitration(Diff)	Abs/cm	ASTM E2412*	< 25	11.1	10.5	8
Sulfation	Abs.:1mm	ASTM D7415*	>30	20.6	19.6	19.2
Sulfation(Diff)	Abs/cm	ASTM E2412*		4.1	1.9	1.7



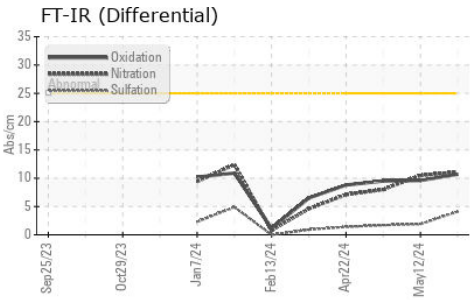
OIL ANALYSIS REPORT



FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	15.9	15.5	15.0
Oxidation(Diff)	Abs/cm	ASTM E2412*	< 25	10.7	9.6	9.5
Base Number (BN)	mg KOH/g	ASTM D2896*		8.57	9.25	9.97

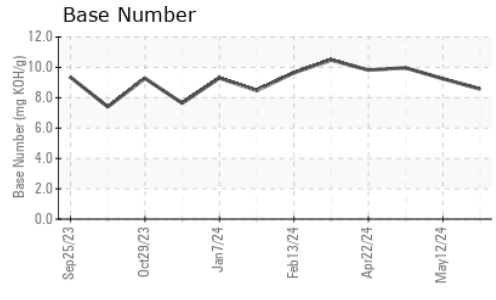
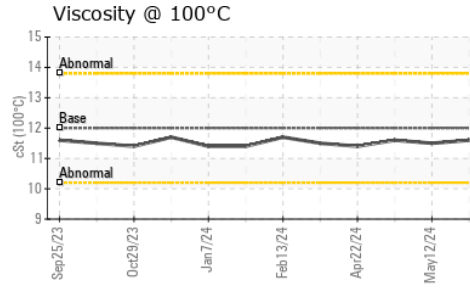
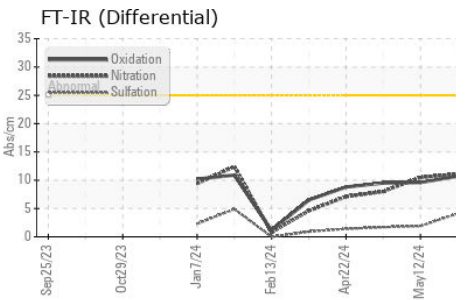
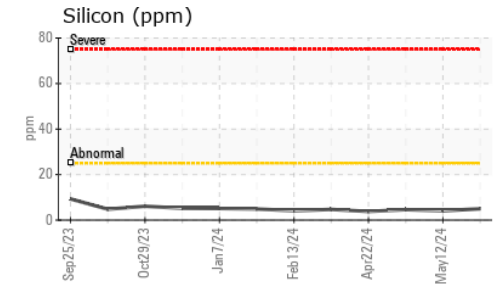
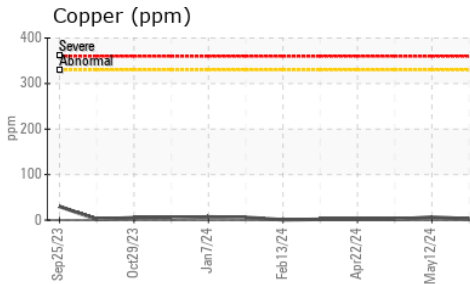
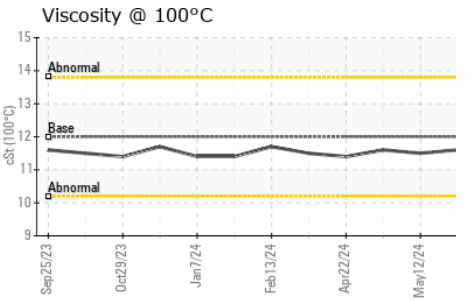
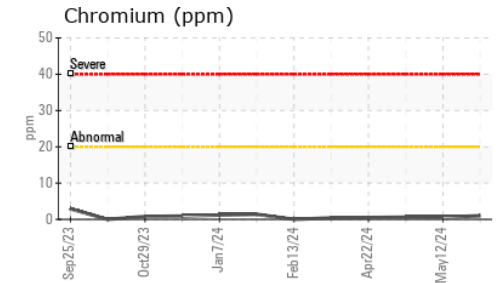
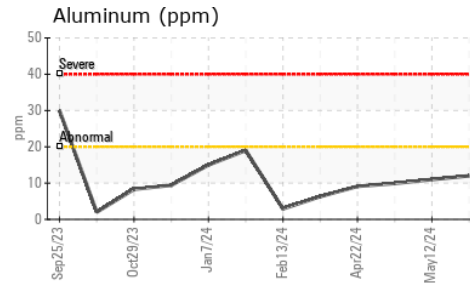
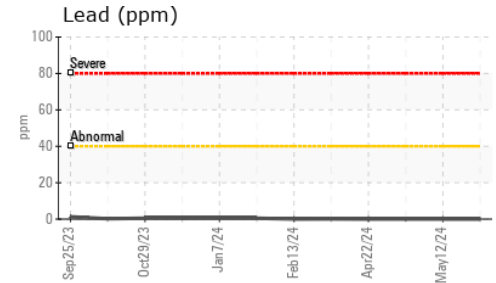
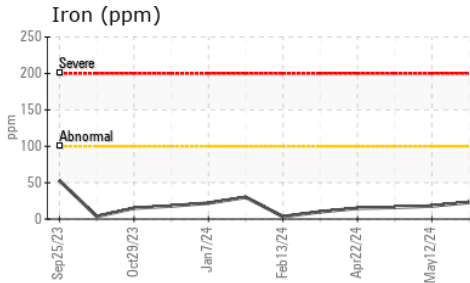


VISUAL	method	limit/base	current	history1	history2	
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG



FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	11.6	11.5	11.6

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0926287
Lab Number : 02642265
Unique Number : 5799804
Test Package : MOB 2 (Additional Tests: FT-IR(Diff), Glycol)
Received : 17 Jun 2024
Tested : 18 Jun 2024
Diagnosed : 19 Jun 2024 - Kevin Marson

WFR Technical Services
 5389 Riverside Drive
 Burlington, ON
 CA L7L 3Y1
 Contact: William Ridley
 wfr.technical.services@gmail.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.