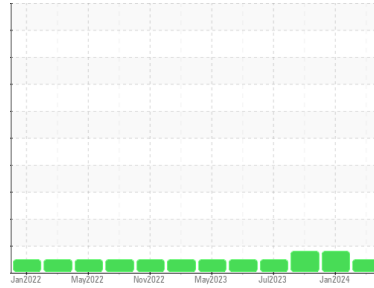


OIL ANALYSIS REPORT



Area
Off-Road
Machine Id
E453
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

Sample Rating Trend



NORMAL

✓

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	PCA0090478	PCA0090800	PCA0090498
Sample Date	Client Info	22 Mar 2024	02 Jan 2024	20 Sep 2023
Machine Age	hrs	10810	10810	10195
Oil Age	hrs	10810	10810	10195
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	ABNORMAL	MARGINAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	▲ 2.5
Water	WC Method >0.2	NEG	NEG	NEG
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	69	▲ 164	49
Chromium	ppm ASTM D5185m >20	<1	2	<1
Nickel	ppm ASTM D5185m >2	<1	<1	0
Titanium	ppm ASTM D5185m >2	0	<1	0
Silver	ppm ASTM D5185m >2	0	0	0
Aluminum	ppm ASTM D5185m >25	3	3	1
Lead	ppm ASTM D5185m >40	<1	<1	<1
Copper	ppm ASTM D5185m >330	1	1	2
Tin	ppm ASTM D5185m >15	<1	1	0
Vanadium	ppm ASTM D5185m	0	<1	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	8	6	7
Barium	ppm ASTM D5185m 0	0	0	0
Molybdenum	ppm ASTM D5185m 60	61	62	55
Manganese	ppm ASTM D5185m 0	<1	<1	0
Magnesium	ppm ASTM D5185m 1010	903	918	884
Calcium	ppm ASTM D5185m 1070	1084	1103	1143
Phosphorus	ppm ASTM D5185m 1150	1055	1027	972
Zinc	ppm ASTM D5185m 1270	1231	1219	1239
Sulfur	ppm ASTM D5185m 2060	3553	3100	3582

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	5	5	5
Sodium	ppm ASTM D5185m	32	17	5
Potassium	ppm ASTM D5185m >20	11	3	4

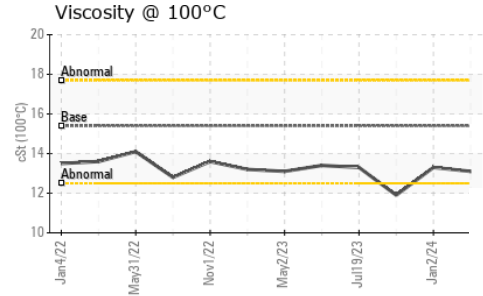
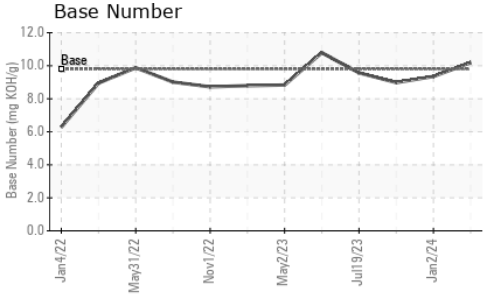
INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.2	0.2	0.4
Nitration	Abs/cm *ASTM D7624 >20	8.3	8.1	7.9
Sulfation	Abs/.1mm *ASTM D7415 >30	18.0	17.5	19.0

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	14.6	14.5	14.5
Base Number (BN)	mg KOH/g ASTM D2896 9.8	10.19	9.35	8.98

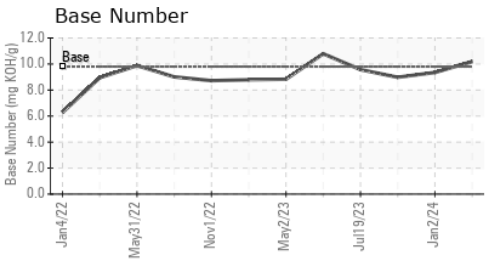
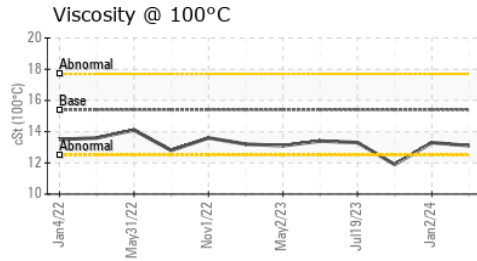
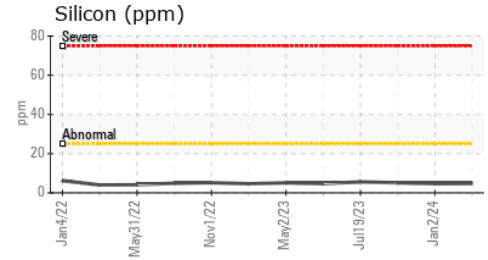
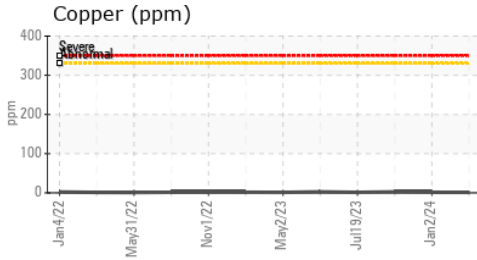
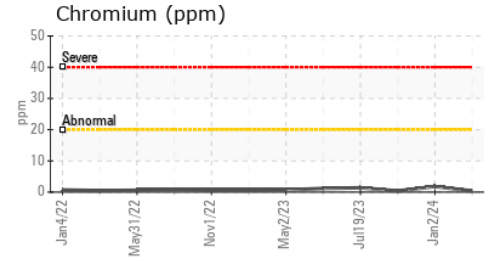
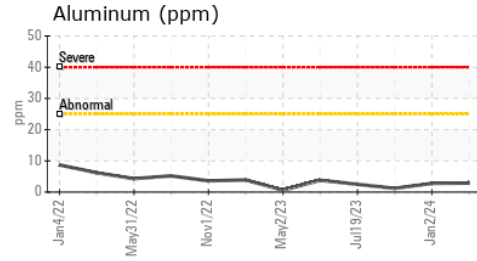
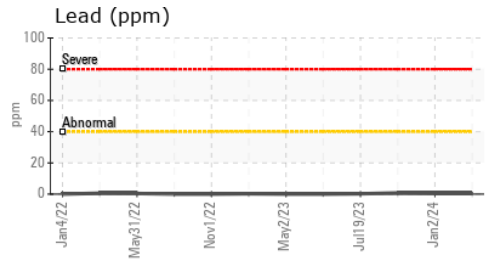
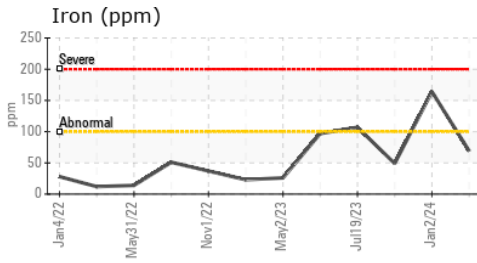
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	13.1	13.3	11.9

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0090478
Lab Number : 06129558
Unique Number : 10943709
Test Package : MOB 2

Received : 26 Mar 2024
Tested : 27 Mar 2024
Diagnosed : 27 Mar 2024 - Wes Davis

WIN Waste Innovations - Shop # - Taunton
 565 WINTHROP ST
 TAUNTON, MA
 US 02780
 Contact: Dave Wilson
 dwilson@win-waste.com

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)

T:
F: