



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
PU-13
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KFS0006085	KFS0004048	KFS0003968
Sample Date		Client Info		07 Jun 2024	02 Dec 2023	17 Jul 2023
Machine Age	mls	Client Info		191220	180710	170627
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	72	47	59
Chromium	ppm	ASTM D5185m	>20	4	2	2
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	21	21	20
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	2	1	2
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

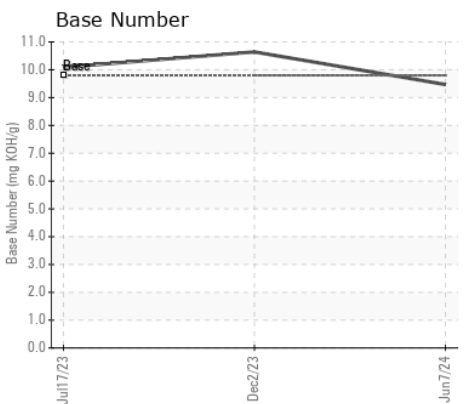
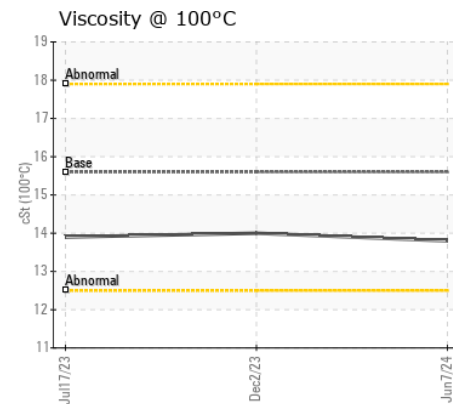
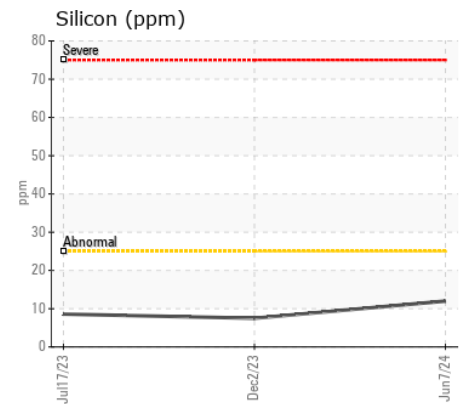
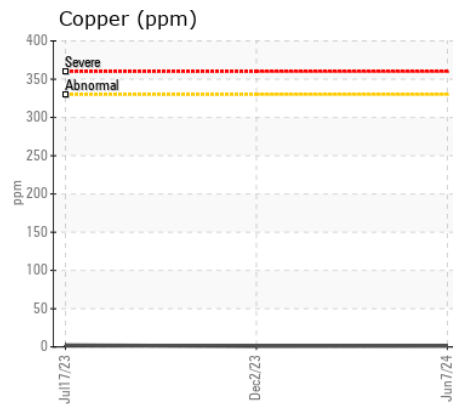
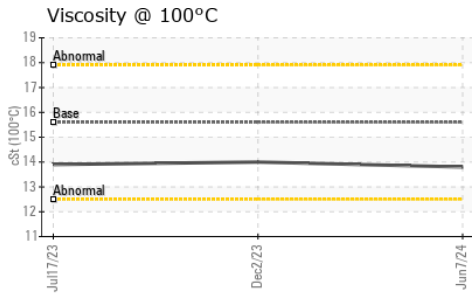
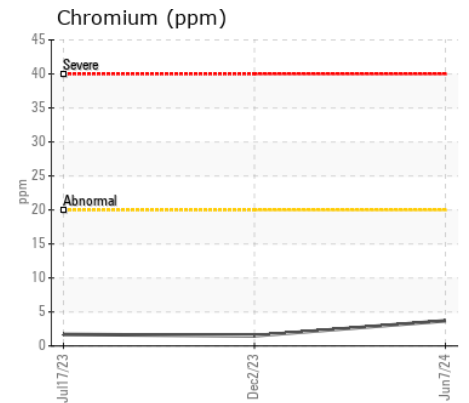
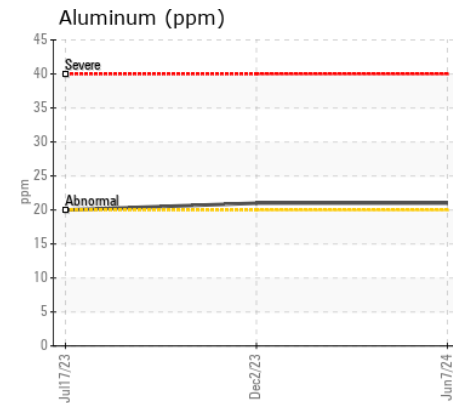
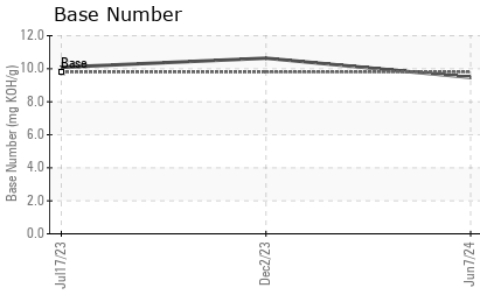
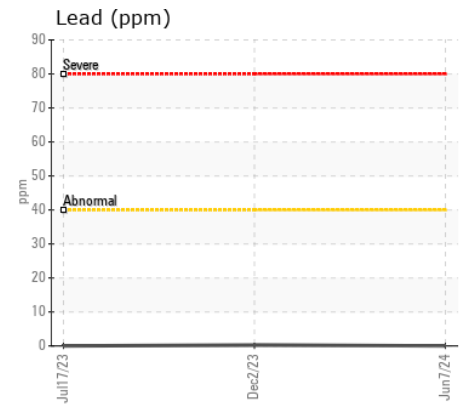
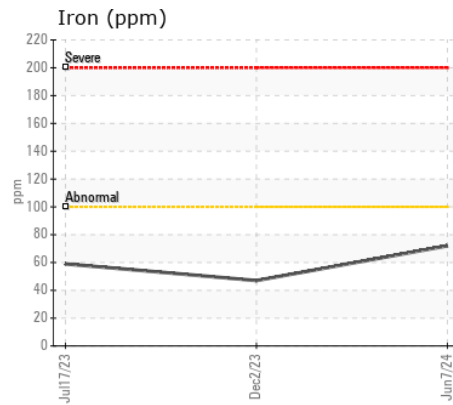
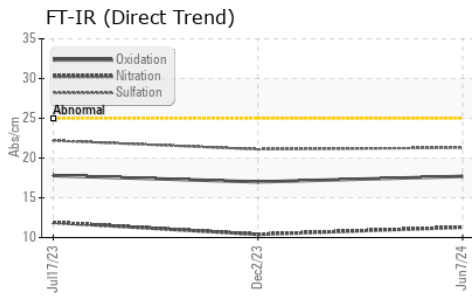
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	12	8	9
Potassium	ppm	ASTM D5185m	>20	13	15	11
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.3	1.3	1.7
Nitration	Abs/cm	*ASTM D7624	>20	11.3	10.4	11.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.3	21.1	22.2
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

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.

Sodium	ppm	ASTM D5185m		3	2	4
Boron	ppm	ASTM D5185m		2	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		64	64	62
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		1021	1057	992
Calcium	ppm	ASTM D5185m		1165	1209	1268
Phosphorus	ppm	ASTM D5185m		1164	1068	1064
Zinc	ppm	ASTM D5185m		1376	1322	1317
Sulfur	ppm	ASTM D5185m		3564	3170	3515
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.7	17.0	17.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.47	10.64	10.09
Visc @ 100°C	cSt	ASTM D445	15.6	13.8	14.0	13.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : KFS0006085

Lab Number : 06216358

Unique Number : 11089222

Test Package : MOB 2

Received : 20 Jun 2024

Tested : 21 Jun 2024

Diagnosed : 23 Jun 2024 - Don Baldrige

HARNES LLLC

855 N JAMES CAMPBELL BLVD

COLUMBIA, TN

US 38401

Contact: BEN HARNES

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F:

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)