



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
96
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0111260	PCA0111279	PCA0087595
Sample Date		Client Info		21 Jun 2024	25 Apr 2024	06 Jan 2024
Machine Age	mls	Client Info		691693	669937	639188
Oil Age	mls	Client Info		20000	10000	20000
Filter Age	mls	Client Info		10000	10000	10000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

Valve wear is indicated.

Iron	ppm	ASTM D5185m	>100	29	26	20
Chromium	ppm	ASTM D5185m	>20	4	2	<1
Nickel	ppm	ASTM D5185m	>4	▲ 5	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	<1	2
Lead	ppm	ASTM D5185m	>40	4	3	0
Copper	ppm	ASTM D5185m	>330	4	6	2
Tin	ppm	ASTM D5185m	>15	2	3	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Elemental level of silicon (Si) above normal indicating ingress of seal material.

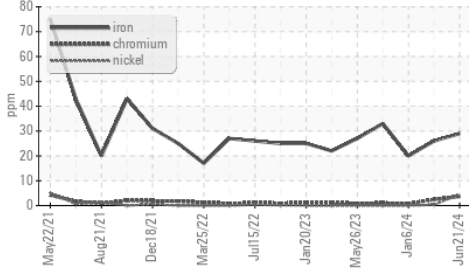
Silicon	ppm	ASTM D5185m	>25	▲ 30	▲ 75	6
Potassium	ppm	ASTM D5185m	>20	7	9	0
Fuel		WC Method	>5	<1.0	▲ 2.1	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	8.6	7.6	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.5	20.4	22.8
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

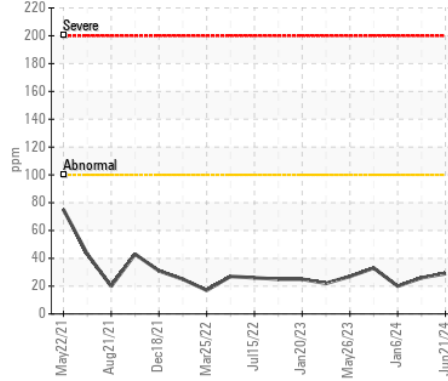
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		8	36	0
Boron	ppm	ASTM D5185m		3	5	0
Barium	ppm	ASTM D5185m		0	9	0
Molybdenum	ppm	ASTM D5185m		59	66	85
Manganese	ppm	ASTM D5185m		1	3	<1
Magnesium	ppm	ASTM D5185m		1029	920	853
Calcium	ppm	ASTM D5185m		1103	1099	1015
Phosphorus	ppm	ASTM D5185m		1090	1018	972
Zinc	ppm	ASTM D5185m		1383	1210	1155
Sulfur	ppm	ASTM D5185m		3643	3443	2804
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.2	16.8	21.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.41	9.93	9.11
Visc @ 100°C	cSt	ASTM D445	15.6	12.9	12.2	13.7

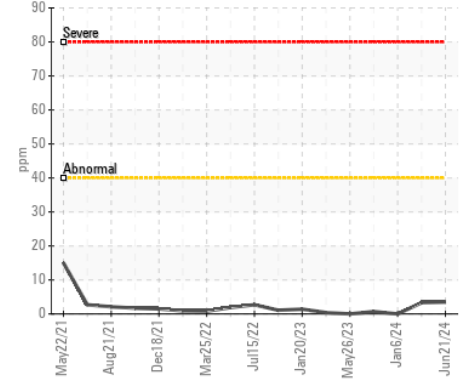
▲ Ferrous Alloys



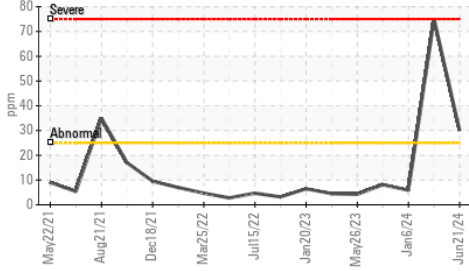
Iron (ppm)



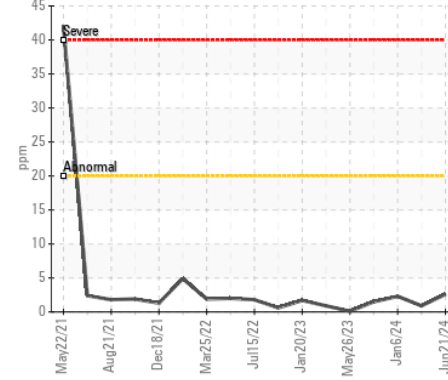
Lead (ppm)



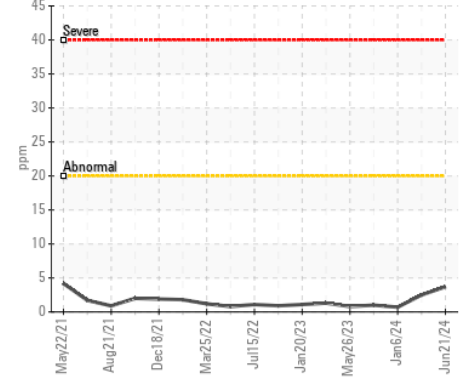
▲ Silicon (ppm)



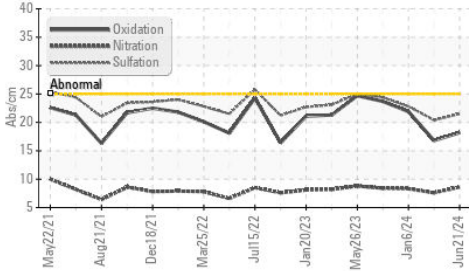
Aluminum (ppm)



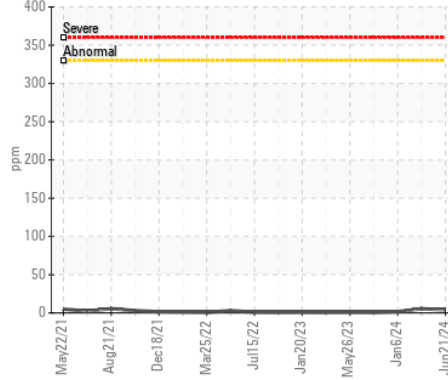
Chromium (ppm)



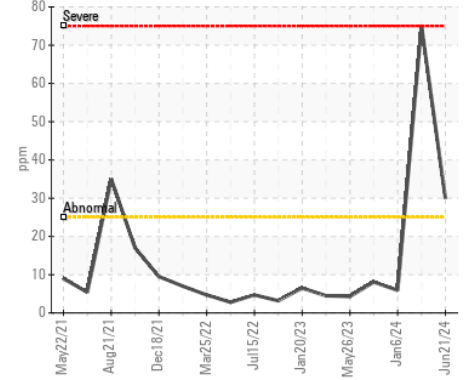
FT-IR (Direct Trend)



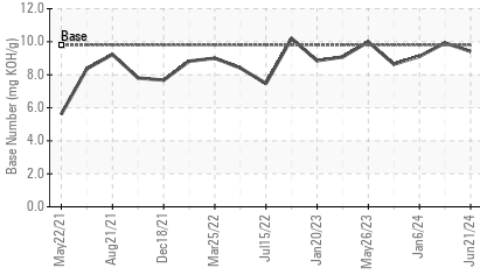
Copper (ppm)



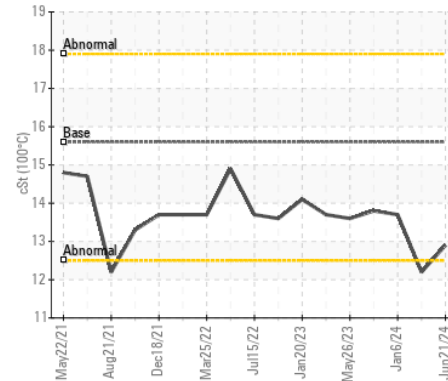
▲ Silicon (ppm)



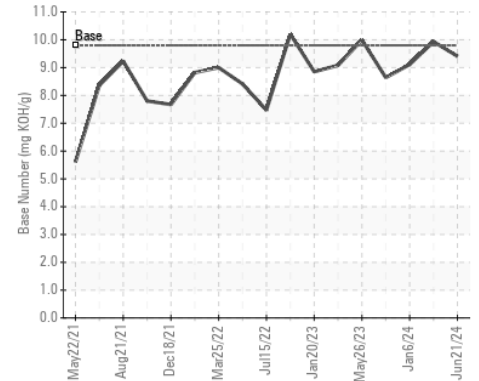
Base Number



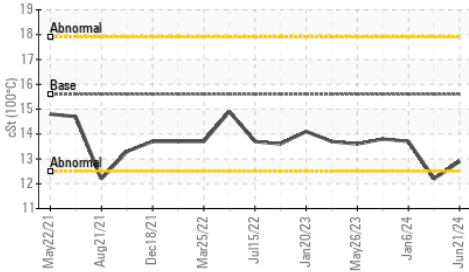
Viscosity @ 100°C



Base Number



Viscosity @ 100°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0111260 **Received** : 28 Jun 2024
Lab Number : 06224090 **Tested** : 02 Jul 2024
Unique Number : 11102287 **Diagnosed** : 02 Jul 2024 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: KV40, TAN Man)

J&J TRUCKING
 N4661 OAK GROVE RD
 BRANDON, WI
 US 53919
 Contact: JOHN HUTTER
 johnh@jjtruckingbrandon.com
 T: (920)346-2880
 F: (920)346-8589

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)