



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

(EQ4281) E

Machine Id

East Side Operation Center (S/N 21814704)

Component

Diesel Engine

Fluid

PETRO CANADA DURON UHP 5W40 (15 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0934065	WC0810883	WC0696104
Sample Date		Client Info		08 May 2024	18 May 2023	11 May 2022
Machine Age	hrs	Client Info		545	520	481
Oil Age	hrs	Client Info		64	58	5
Filter Age	hrs	Client Info		0	58	5
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	4	3	2
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	1	<1	<1
Aluminum	ppm	ASTM D5185m	>20	1	<1	<1
Lead	ppm	ASTM D5185m	>40	2	2	1
Copper	ppm	ASTM D5185m	>330	1	1	1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
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.

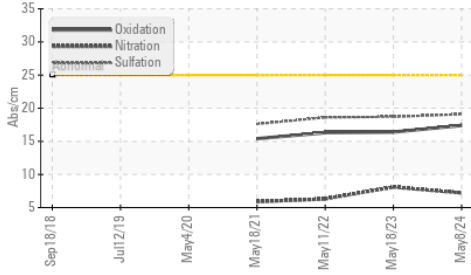
Silicon	ppm	ASTM D5185m	>25	4	3	5
Potassium	ppm	ASTM D5185m	>20	1	1	0
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.2	8.1	6.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.1	18.7	18.6
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

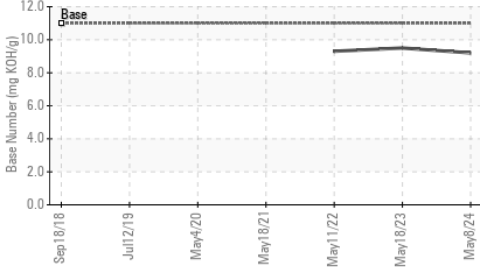
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		5	5	5
Boron	ppm	ASTM D5185m	65	65	70	74
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	65	52	49	49
Manganese	ppm	ASTM D5185m	0	<1	<1	0
Magnesium	ppm	ASTM D5185m	1160	1045	1003	1016
Calcium	ppm	ASTM D5185m	820	1097	1065	1095
Phosphorus	ppm	ASTM D5185m	1160	1117	1034	1088
Zinc	ppm	ASTM D5185m	1260	1350	1332	1239
Sulfur	ppm	ASTM D5185m	3000	4288	3999	3182
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.4	16.4	16.3
Base Number (BN)	mg KOH/g	ASTM D2896	11.0	9.2	9.5	9.3
Visc @ 100°C	cSt	ASTM D445	14.3	13.2	13.5	14.1

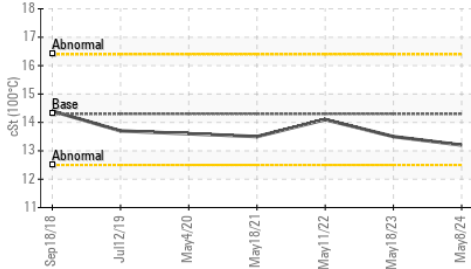
FT-IR (Direct Trend)



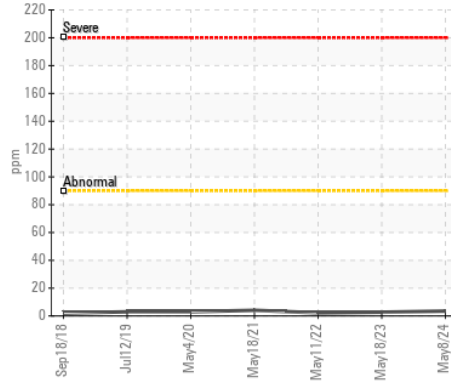
Base Number



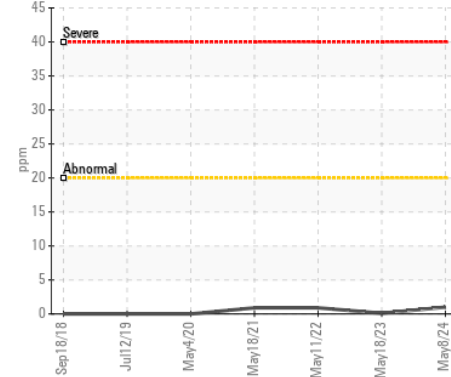
Viscosity @ 100°C



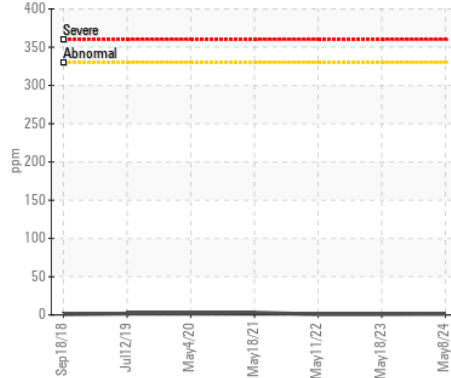
Iron (ppm)



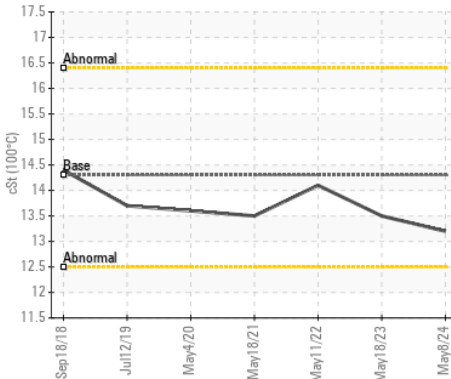
Aluminum (ppm)



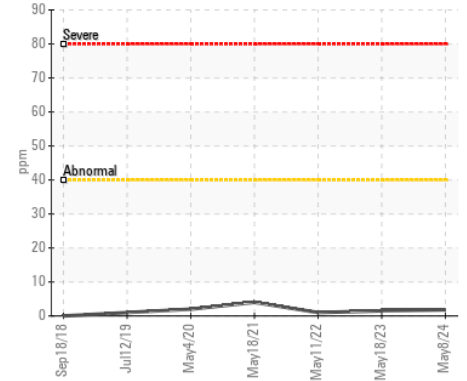
Copper (ppm)



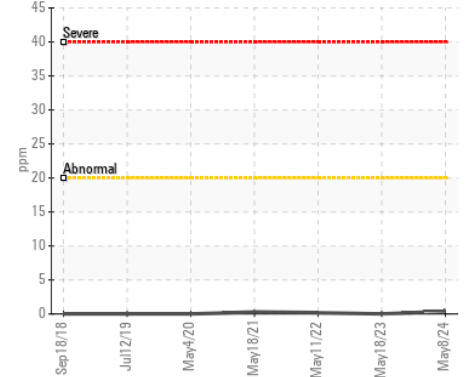
Viscosity @ 100°C



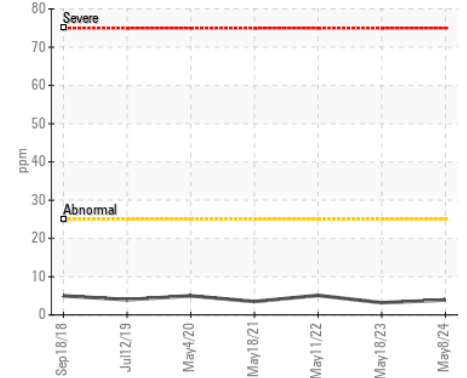
Lead (ppm)



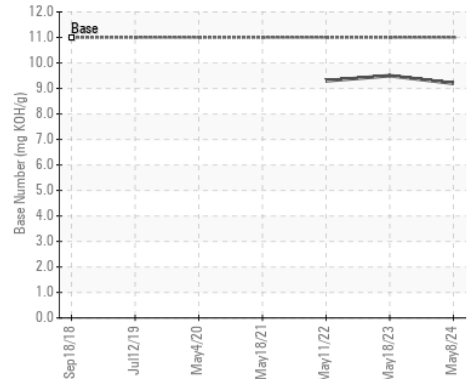
Chromium (ppm)



Silicon (ppm)



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0934065 **Received** : 13 May 2024
Lab Number : 06176877 **Tested** : 14 May 2024
Unique Number : 11022930 **Diagnosed** : 14 May 2024 - Sean Felton
Test Package : MOB 1 (Additional Tests: TBN)

MONROE COUNTY WATER AUTHORITY
 4799 DEWEY AVE
 ROCHESTER, NY
 US 14612
 Contact: SCOTT TRAIL
 scott.trail@mcwa.com
 T: (585)775-5257
 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)