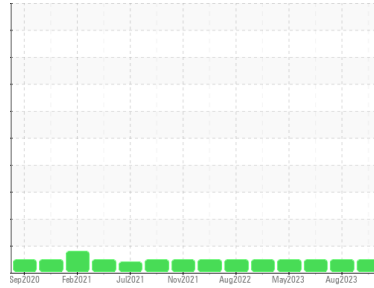


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**DR182**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON UHP 5W40 (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 condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>PC0078389</b>	PC0078032	PC0078067
Sample Date	Client Info			<b>20 Jan 2024</b>	04 Aug 2023	06 Jul 2023
Machine Age	hrs	Client Info		<b>9010</b>	8159	8028
Oil Age	hrs	Client Info		<b>250</b>	250	250
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2		<b>NEG</b>	NEG	NEG
Glycol	WC Method			<b>NEG</b>	NEG	NEG

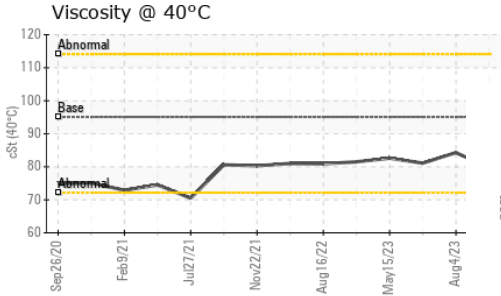
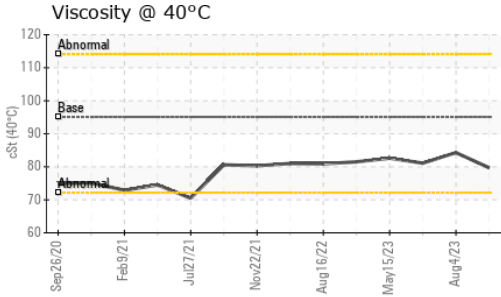
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	<b>6</b>	5	9
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	<1	1
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	2	5
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	65	<b>35</b>	34	27
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	65	<b>57</b>	56	57
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	1160	<b>1066</b>	1109	1103
Calcium	ppm	ASTM D5185(m)	820	<b>818</b>	830	825
Phosphorus	ppm	ASTM D5185(m)	1160	<b>995</b>	1037	1017
Zinc	ppm	ASTM D5185(m)	1260	<b>1144</b>	1160	1145
Sulfur	ppm	ASTM D5185(m)	3000	<b>2848</b>	2778	2715
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	3	3
Sodium	ppm	ASTM D5185(m)		<b>3</b>	4	4
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	<1	1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	<b>0</b>	0	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.9</b>	7.9	9.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.0</b>	20.9	20.3

# OIL ANALYSIS REPORT

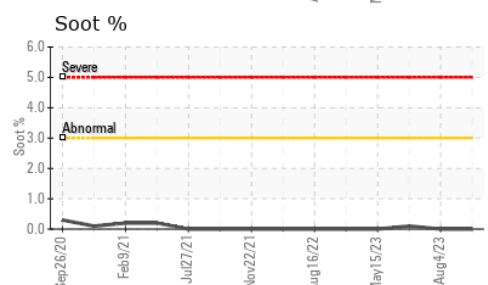
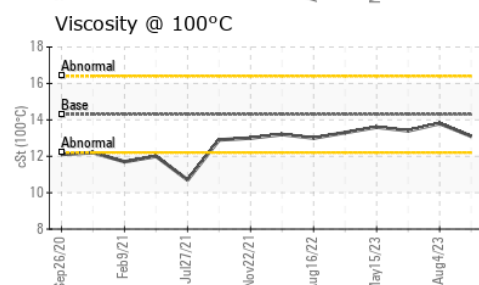
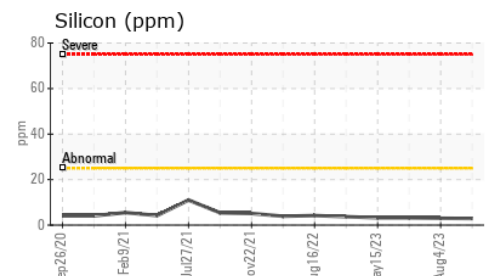
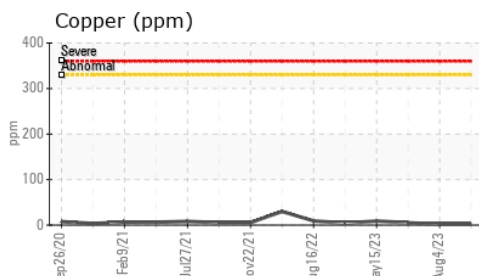
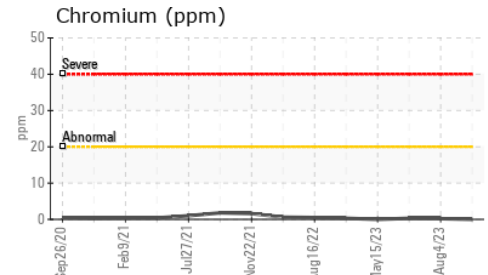
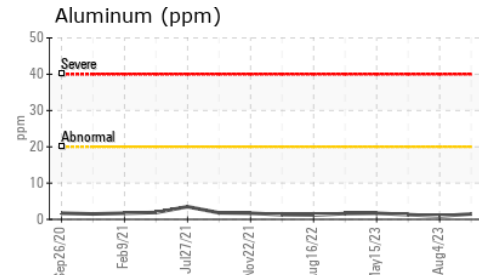
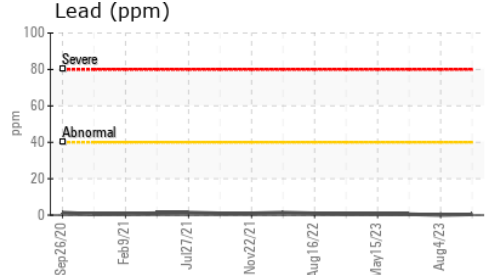
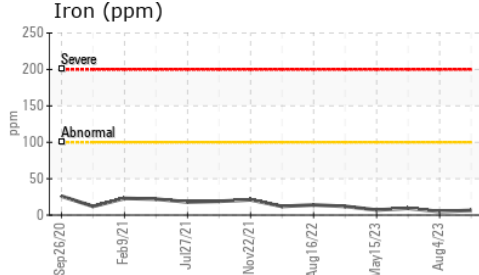


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>18.4</b>	17.7	18.3

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	<b>79.7</b>	84.3	81.1
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	<b>13.1</b>	13.8	13.4
Viscosity Index (VI)	Scale	ASTM D2270*	169	<b>166</b>	168	168

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations  
**Sample No.** : PC0078389 **Received** : 01 Feb 2024  
**Lab Number** : **02612724** **Diagnosed** : 01 Feb 2024  
**Unique Number** : 5721819 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI )

151 Ram Forest Rd,  
 Stouffville, ON  
 CA L4A 2G8  
 Contact: Bill Acton  
 bacton@gipi.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.

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