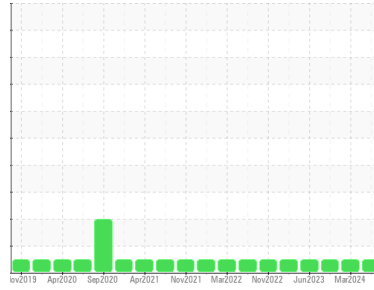


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**DR172**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON UHP 5W40 (36 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>PC0088297</b>	PC0078481	PC0082045
Sample Date	Client Info			<b>09 May 2024</b>	15 Mar 2024	25 Oct 2023
Machine Age	hrs	Client Info		<b>10731</b>	10460	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

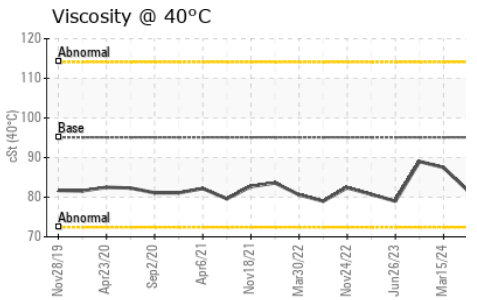
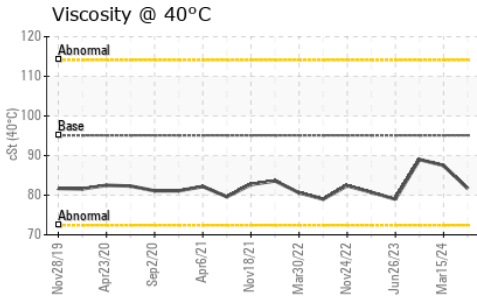
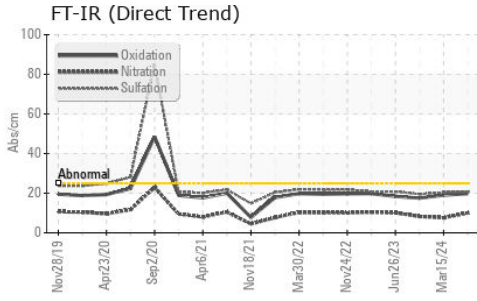
CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2		<b>NEG</b>	NEG	NEG
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	<b>18</b>	7	10
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<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	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>3</b>	<1	2
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	<1	<1
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>34</b>	50	46
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	65	<b>53</b>	53	60
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	1160	<b>1015</b>	1041	1087
Calcium	ppm	ASTM D5185(m)	820	<b>793</b>	783	893
Phosphorus	ppm	ASTM D5185(m)	1160	<b>937</b>	952	991
Zinc	ppm	ASTM D5185(m)	1260	<b>1098</b>	1109	1216
Sulfur	ppm	ASTM D5185(m)	3000	<b>2573</b>	2721	2720
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>2</b>	1	5
Sodium	ppm	ASTM D5185(m)		<b>5</b>	4	5
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	<b>0.3</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.0</b>	7.6	8.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.7</b>	20.4	19.5

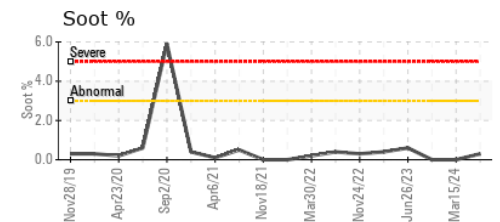
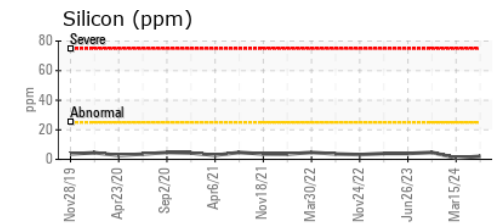
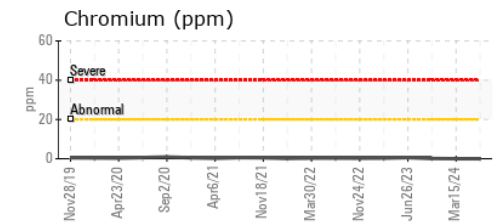
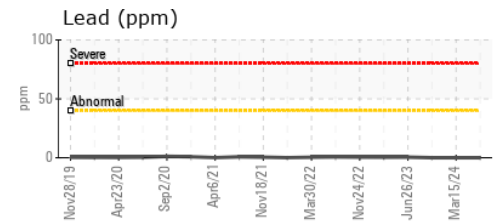
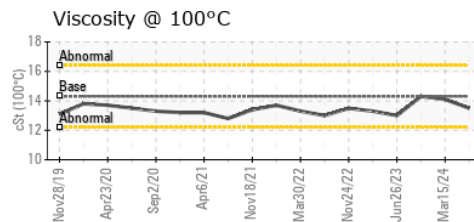
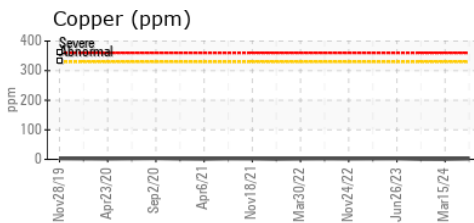
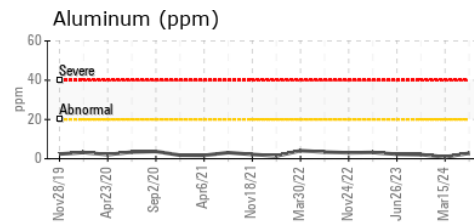
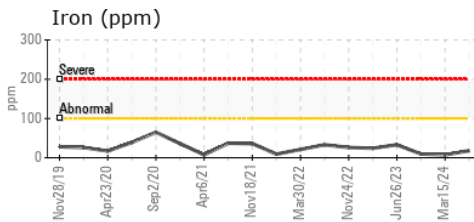


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>19.8</b>	19.0	17.5

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	---	---
Silt	scalar	Visual*	NONE	<b>VLITE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
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>81.7</b>	87.5	89.0
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	<b>13.5</b>	14.1	14.3
Viscosity Index (VI)	Scale	ASTM D2270*	169	<b>168</b>	166	166

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0088297  
**Lab Number** : 02636335  
**Unique Number** : 5785497  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI, Visual )

**Received** : 17 May 2024  
**Tested** : 17 May 2024  
**Diagnosed** : 17 May 2024 - Wes Davis  
 Green Infrastructure and Partners Inc (GIPI) • 286 • Shoring & Foundations  
 151 Ram Forest Rd,  
 Stouffville, ON  
 CA L4A 2G8  
 Contact: Shannon Abbott  
 sabbott@gipi.com  
 T: (905)750-5900  
 F:

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.