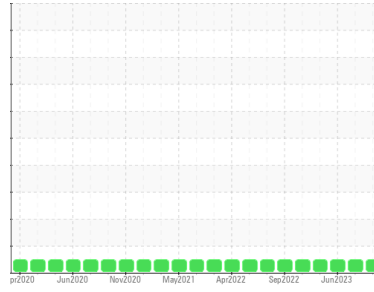




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
RST0471
 Component
Diesel Engine
 Fluid

PETRO CANADA DURON UHP 5W40 (8 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	PC0089316	PC0082218	PC0075315	
Sample Date	Client Info	17 Apr 2024	28 Feb 2024	08 Jun 2023	
Machine Age	hrs	Client Info	7284	6197	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info	Changed	Changed	Changed	
Sample Status		NORMAL	NORMAL	NORMAL	

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	<1.0
Water	WC Method >0.2	NEG	NEG	NEG
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

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

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 65	42	43	37
Barium	ppm ASTM D5185(m) 0	0	0	0
Molybdenum	ppm ASTM D5185(m) 65	55	52	57
Manganese	ppm ASTM D5185(m) 0	0	0	<1
Magnesium	ppm ASTM D5185(m) 1160	1088	1031	1044
Calcium	ppm ASTM D5185(m) 820	782	790	796
Phosphorus	ppm ASTM D5185(m) 1160	961	952	973
Zinc	ppm ASTM D5185(m) 1260	1139	1099	1146
Sulfur	ppm ASTM D5185(m) 3000	2593	2735	2568
Lithium	ppm ASTM D5185(m)	<1	<1	<1

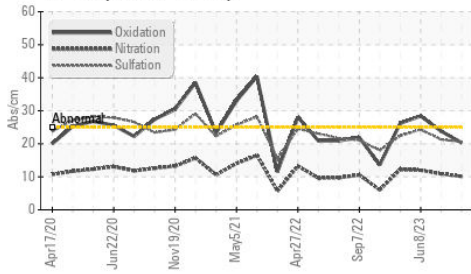
CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	2	7	7
Sodium	ppm ASTM D5185(m)	4	4	5
Potassium	ppm ASTM D5185(m) >20	0	<1	0

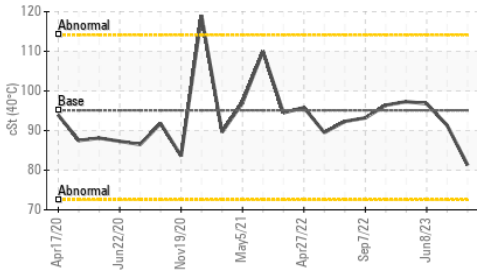
INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0	0	0
Nitration	Abs/cm ASTM D7624* >20	10.1	10.9	12.0
Sulfation	Abs/.1mm ASTM D7415* >30	20.6	21.3	24.3

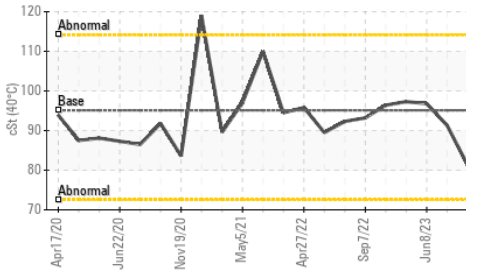
FT-IR (Direct Trend)



Viscosity @ 40°C



Viscosity @ 40°C



FLUID DEGRADATION method limit/base current history1 history2

Oxidation	Abs./1mm	ASTM D7414*	>25	20.3	23.8	28.4
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VISUAL method limit/base current history1 history2

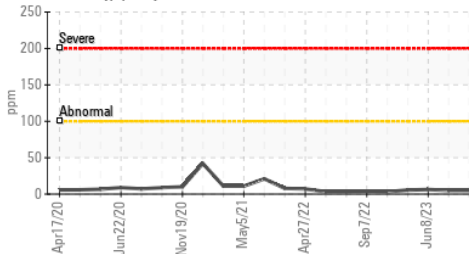
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES method limit/base current history1 history2

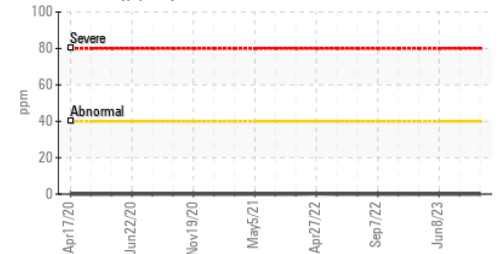
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	81.3	91.3	96.8
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	13.3	14.6	14.9
Viscosity Index (VI)	Scale	ASTM D2270*	169	166	166	161

GRAPHS

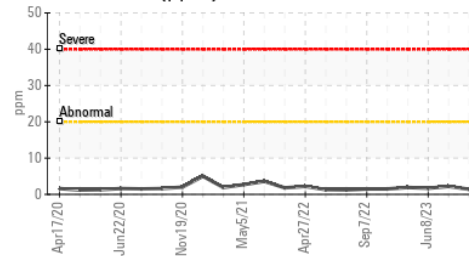
Iron (ppm)



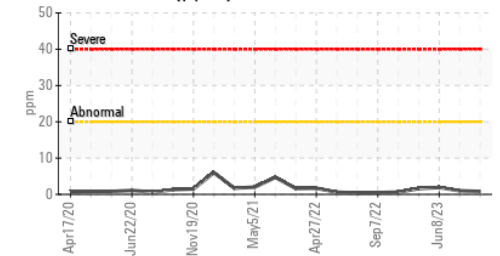
Lead (ppm)



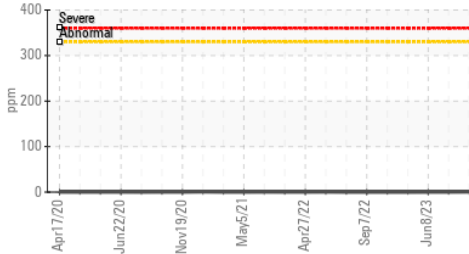
Aluminum (ppm)



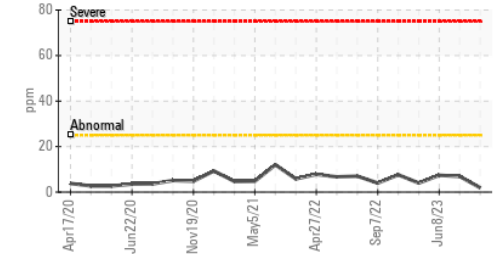
Chromium (ppm)



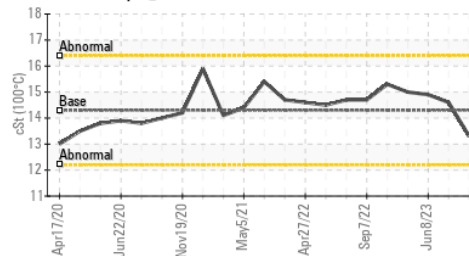
Copper (ppm)



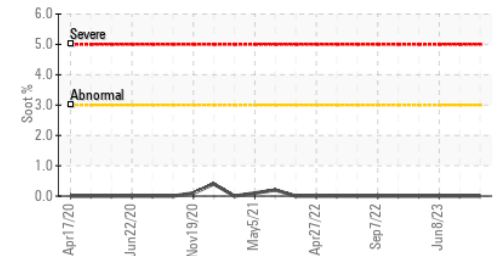
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations
Sample No. : PC0089316 **Received** : 25 Apr 2024 151 Ram Forest Rd,
Lab Number : **02631264** **Tested** : 25 Apr 2024 Stouffville, ON
Unique Number : 5772417 **Diagnosed** : 25 Apr 2024 - Kevin Marson CA L4A 2G8
Test Package : MOB 1 (Additional Tests: KV40, VI) Contact: Shannon Abbott
sabbott@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.

T: (905)750-5900

F: