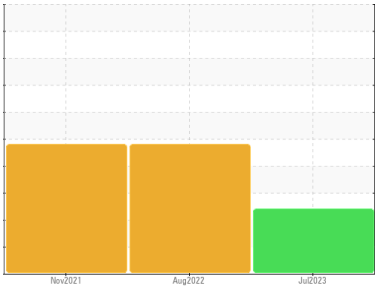
OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL

Machine Id
NEW HOLLAND CR9090 2011CR9090
Component
Diesel Engine
Fluid
PETRO CANADA DURON UHP 5W40 (27 LTR)

DIAGNOSIS

▲ Recommendation

We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

▲ Contamination

Test for glycol is positive. Light fuel dilution occurring. There is a moderate concentration of glycol present in the oil. No other contaminants were detected in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0009050**	PC0009040	PC0009099
Sample Date		Client Info		**19 Jul 2023**	16 Aug 2022	03 Nov 2021
Machine Age	hrs	Client Info		**2182**	2052	1986
Oil Age	hrs	Client Info		**57**	0	0
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	**7**	6	37
Chromium	ppm	ASTM D5185(m)	>20	**<1**	0	<1
Nickel	ppm	ASTM D5185(m)	>4	**0**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	<1	0
Silver	ppm	ASTM D5185(m)	>3	**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>20	**2**	2	9
Lead	ppm	ASTM D5185(m)	>40	**<1**	3	7
Copper	ppm	ASTM D5185(m)	>330	**11**	54	11
Tin	ppm	ASTM D5185(m)	>15	**0**	<1	2
Antimony	ppm	ASTM D5185(m)		**1**	5	24
Vanadium	ppm	ASTM D5185(m)		**0**	0	<1
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	**50**	90	208
Barium	ppm	ASTM D5185(m)	0	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	65	**60**	64	104
Manganese	ppm	ASTM D5185(m)	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185(m)	1160	**1062**	849	584
Calcium	ppm	ASTM D5185(m)	820	**939**	1178	1672
Phosphorus	ppm	ASTM D5185(m)	1160	**1092**	1046	1176
Zinc	ppm	ASTM D5185(m)	1260	**1209**	1229	1365
Sulfur	ppm	ASTM D5185(m)	3000	**2819**	2835	3031
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**6**	4	10
Sodium	ppm	ASTM D5185(m)		**15**	▲ 29	▲ 59
Potassium	ppm	ASTM D5185(m)	>20	**5**	▲ 7	▲ 20
Fuel	%	ASTM D7593*	>5	**1**	<1.0	<1.0
Glycol	%	ASTM D7922*		▲ **0.094**	▲ 0.074	▲ 0.027

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.1**	0	0.7
Nitration	Abs/cm	ASTM D7624*	>20	**7.7**	4.9	10.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	**20.3**	18.2	27.4

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**17.2**	13.1	20.4
Base Number (BN)	mg KOH/g	ASTM D2896*	11.0	**10.84**	9.89	6.10

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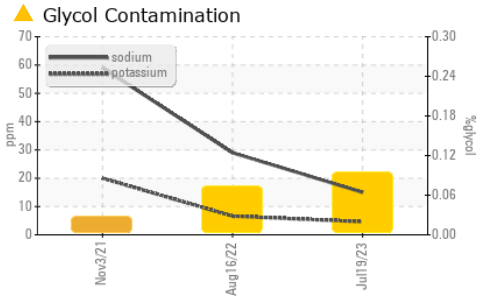
Glycol Contamination

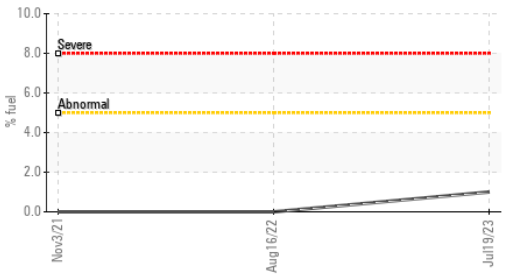


VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

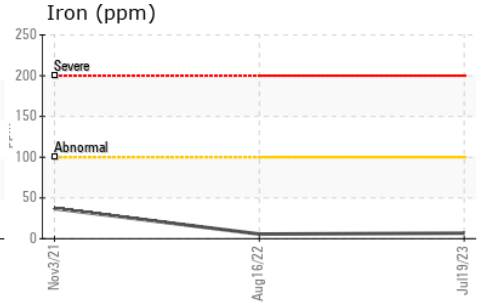
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	**75.1**	106	104
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	**12.0**	14.2	13.6
Viscosity Index (VI)	Scale	ASTM D2270*	169	**155**	136	130

GRAPHS

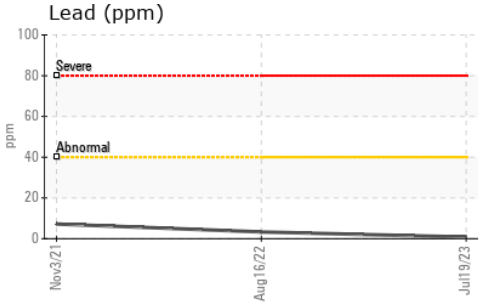
Fuel Dilution



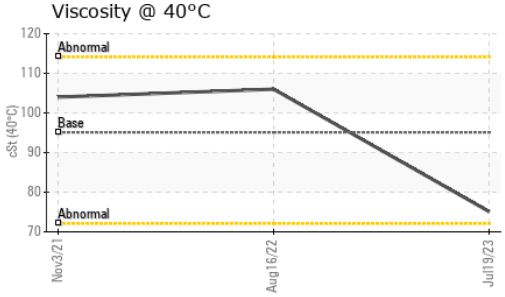
Iron (ppm)



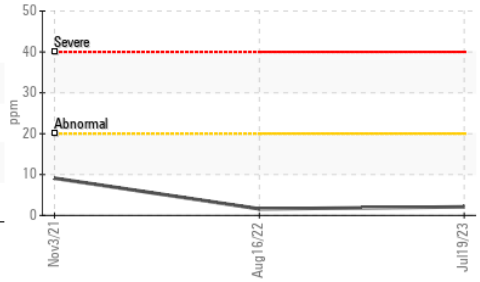
Lead (ppm)



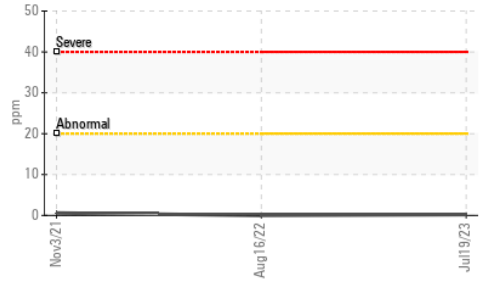
Viscosity @ 40°C



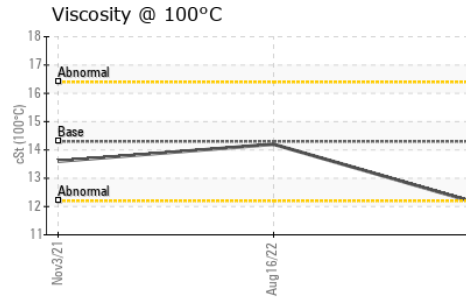
Aluminum (ppm)



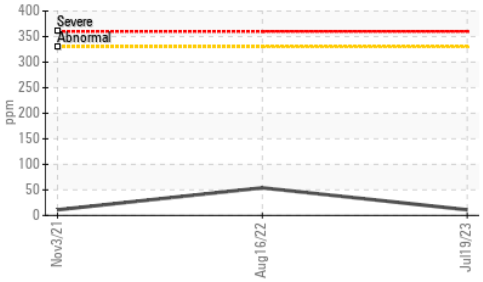
Chromium (ppm)



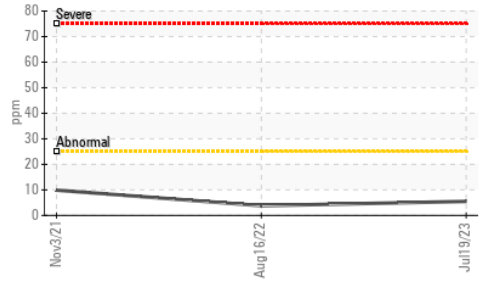
Viscosity @ 100°C



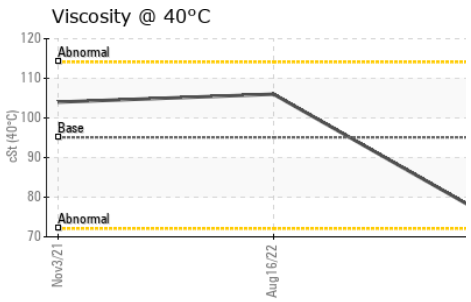
Copper (ppm)



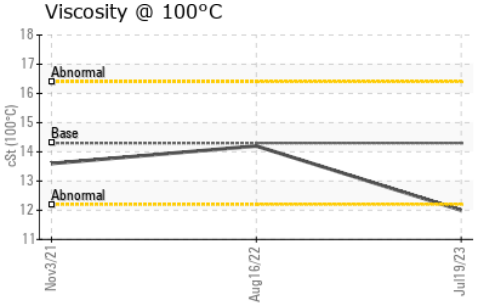
Silicon (ppm)



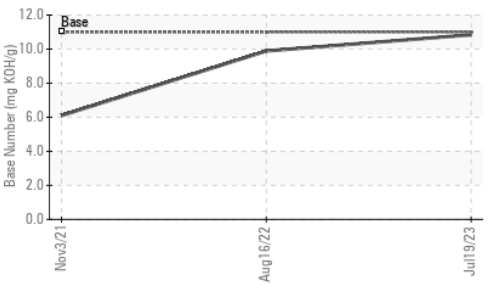
Viscosity @ 40°C



Viscosity @ 100°C



Base Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0009050 **Received** : 25 Jul 2023
Lab Number : 02571833 **Diagnosed** : 26 Jul 2023
Unique Number : 5616884 **Diagnostician** : Wes Davis
Test Package : MOB 2 (Additional Tests: FuelDilution, KV40, PercentFuel, VI)

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.

RUSTAD INDUSTRIES
PO BOX 130
ROSE VALLEY, SK
CA S0E 1M0
Contact: Melissa
melissa@rustadindustries.ca
T: (306)322-9155
F: