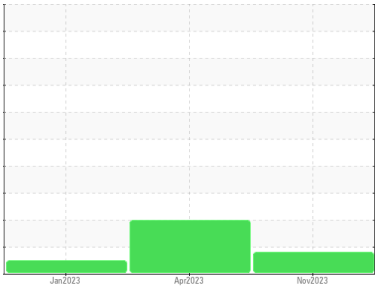
PROBLEM SUMMARY

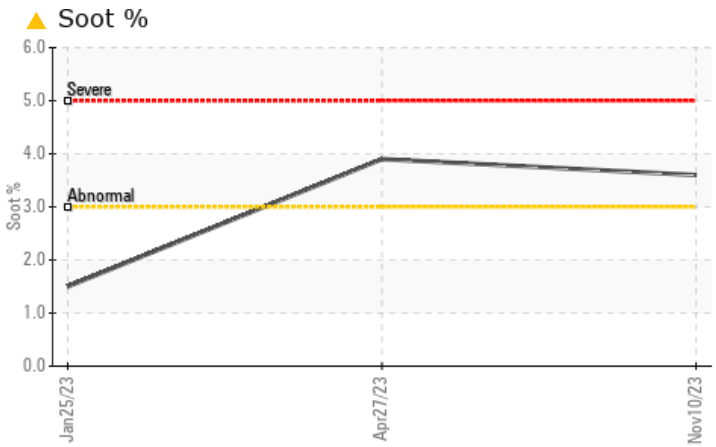
Area
BARTO
Machine Id
6326 [BARTO]
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

Sample Rating Trend



SOOT

COMPONENT CONDITION SUMMARY



RECOMMENDATION

The oil change at the time of sampling has been noted.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	NORMAL
Soot %	%	*ASTM D7844	>3	▲ **3.6**	▲ 3.9	1.5

Customer Id: SCHBARTO
Sample No.: SBP0005924
Lab Number: 06017206
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

27 Apr 2023 Diag: Jonathan Hester

DEGRADATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: High solids (carbon/soot) in the sample have limited the accuracy of Infra-Red data including Total Base Number (TBN) value.All component wear rates are normal. There is an abnormal amount of solids and carbon present in the oil. The BN level is low.

view report

25 Jan 2023 Diag: Wes Davis

NORMAL

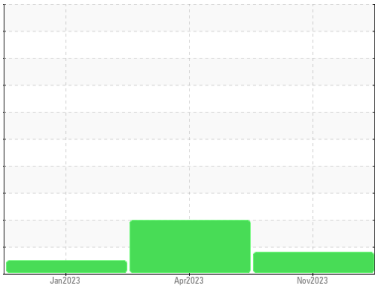
Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.Metal levels are typical for a components first oil change. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Area
BARTO
Machine Id
6326 [BARTO]
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

Sample Rating Trend



SOOT

DIAGNOSIS

Recommendation
The oil change at the time of sampling has been noted.

Wear
All component wear rates are normal.

Contamination
Light concentration of carbon/soot present 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		**SBP0005924**	SBP0002562	SBP0002189
Sample Date		Client Info		**10 Nov 2023**	27 Apr 2023	25 Jan 2023
Machine Age	mls	Client Info		**573659**	550204	520832
Oil Age	mls	Client Info		**24098**	29372	520832
Oil Changed		Client Info		**Changed**	Not Changd	Changed
Sample Status				**ABNORMAL**	ABNORMAL	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 D5185m	>80	**41**	47	21
Chromium	ppm	ASTM D5185m	>5	**2**	2	1
Nickel	ppm	ASTM D5185m	>2	**<1**	0	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>30	**3**	2	<1
Lead	ppm	ASTM D5185m	>30	**4**	4	<1
Copper	ppm	ASTM D5185m	>150	**3**	2	<1
Tin	ppm	ASTM D5185m	>5	**<1**	<1	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**1**	10	12
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	60	**58**	56	58
Manganese	ppm	ASTM D5185m	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	1010	**916**	879	858
Calcium	ppm	ASTM D5185m	1070	**1054**	1382	1162
Phosphorus	ppm	ASTM D5185m	1150	**878**	968	924
Zinc	ppm	ASTM D5185m	1270	**1167**	1205	1115
Sulfur	ppm	ASTM D5185m	2060	**3050**	3516	3435

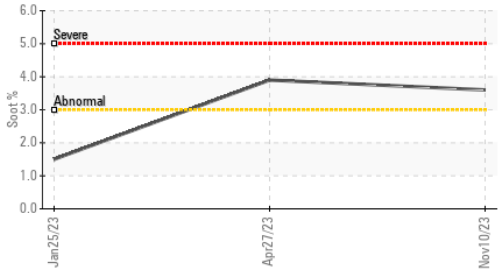
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**3**	3	4
Sodium	ppm	ASTM D5185m		**<1**	4	6
Potassium	ppm	ASTM D5185m	>20	**5**	1	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	▲ **3.6**	▲ 3.9	1.5
Nitration	Abs/cm	*ASTM D7624	>20	**9.7**	10.2	7.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	**24.9**	26.9	20.6

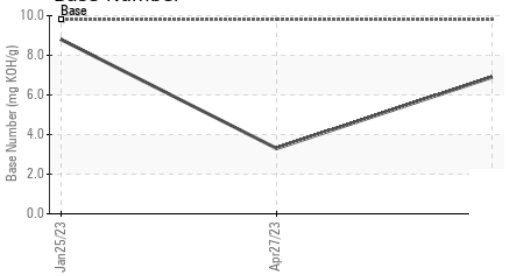
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**15.7**	16.6	14.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**6.9**	▲ 3.3	8.8

OIL ANALYSIS REPORT

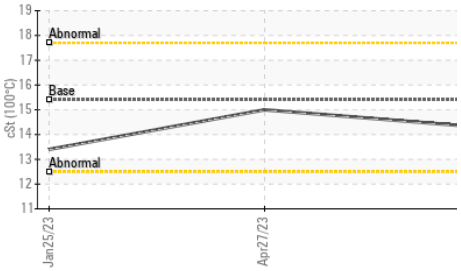
Soot %



Base Number



Viscosity @ 100°C

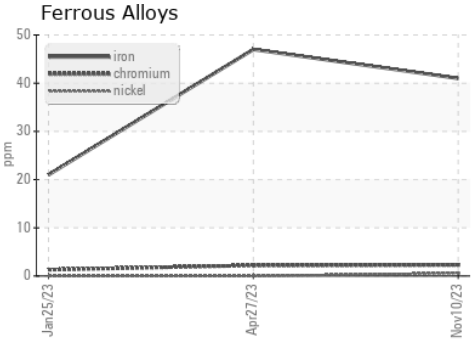


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

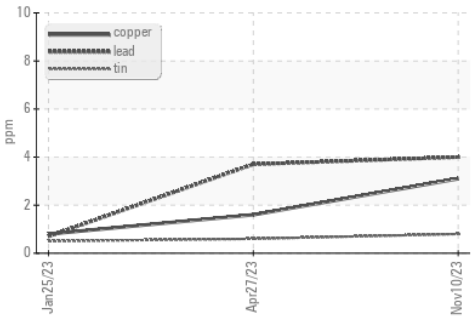
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	**14.3**	15.0	13.4

GRAPHS

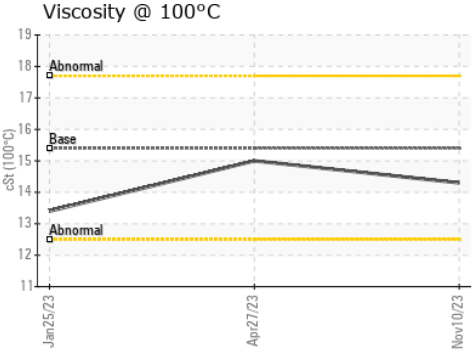
Ferrous Alloys



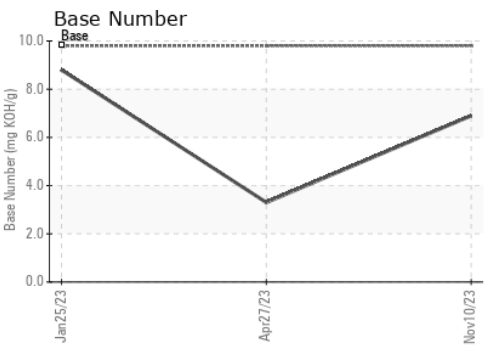
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0005924
Lab Number : 06017206
Unique Number : 10756350
Test Package : FLEET

Received : 24 Nov 2023
Diagnosed : 28 Nov 2023
Diagnostician : Wes Davis

SCHMIDT TRANSPORTATION - BARTO
108 E Bay Road
Plattsmouth, NE
US 68048
Contact: Service Manager

T:
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)