



PROBLEM SUMMARY

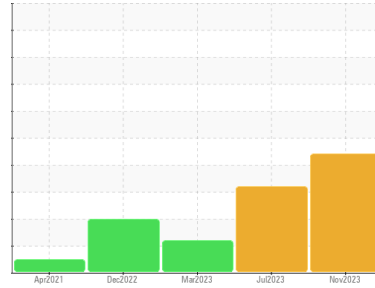
Sample Rating Trend

FUEL

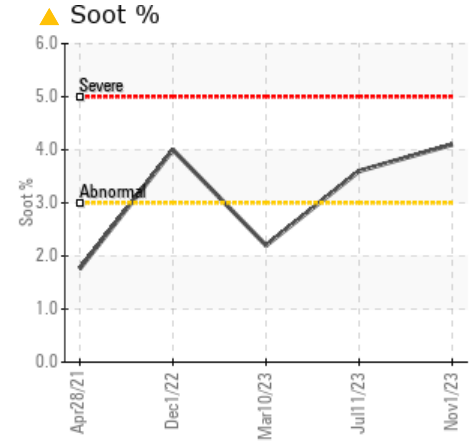
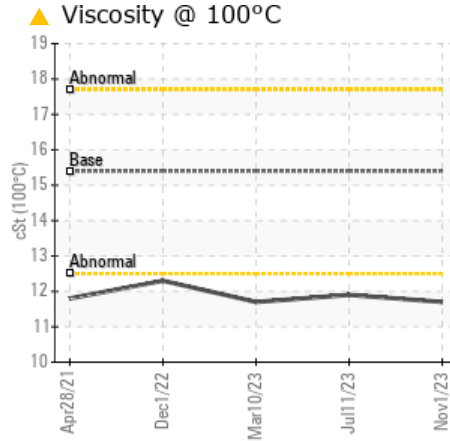
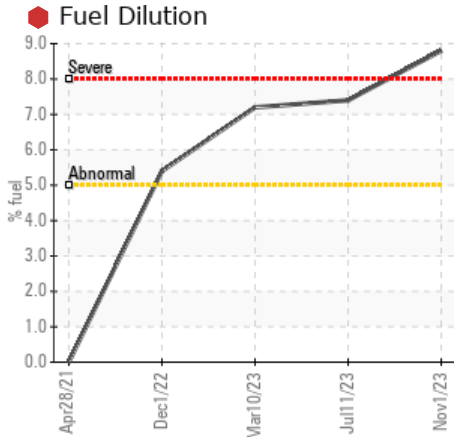


Area
SCHTRUCK
Machine Id
6249 [SCHTRUCK]

Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	ABNORMAL
Fuel	%	ASTM D3524	>5	8.8	7.4	7.2
Soot %	%	*ASTM D7844	>3	4.1	3.6	2.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	1.1	2.1	4.9
Visc @ 100°C	cSt	ASTM D445	15.4	11.7	11.9	11.7

Customer Id: SCHPLA
Sample No.: SBP0005601
Lab Number: 06000946
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldrige +1
don.b505@comcast.net

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Combustion	---	---	?	We advise that you check for faulty combustion, plugged air filters, or aftercoolers.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

11 Jul 2023 Diag: Don Baldrige

DEGRADATION



We advise that you check for faulty combustion, plugged air filters, or aftercoolers. We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is an abnormal amount of solids and carbon present in the oil. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN level is low.

view report



10 Mar 2023 Diag: Angela Borella

FUEL



We advise that you check for faulty combustion, plugged air filters, or aftercoolers. We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report



01 Dec 2022 Diag: Jonathan Hester

SOOT



We advise that you check for faulty combustion, plugged air filters, or aftercoolers. We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is an abnormal amount of solids and carbon present in the oil. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

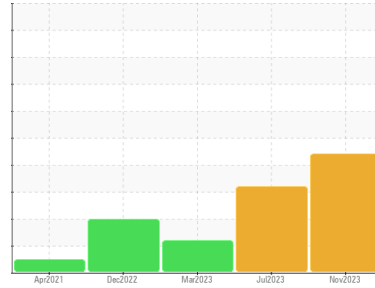
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OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area
SCHTRUCK
 Machine Id
6249 [SCHTRUCK]

Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is an abnormal amount of solids and carbon present in the oil. There is a high amount of fuel present in the oil.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN level is low.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		SBP0005601	SBP0004693	SBP0003906
Sample Date	Client Info		01 Nov 2023	11 Jul 2023	10 Mar 2023
Machine Age	mls	Client Info	653722	629695	604794
Oil Age	mls	Client Info	24027	24901	23878
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			SEVERE	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >80	63	52	41
Chromium	ppm	ASTM D5185m >5	1	2	1
Nickel	ppm	ASTM D5185m >2	0	<1	<1
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >30	2	2	2
Lead	ppm	ASTM D5185m >30	10	20	19
Copper	ppm	ASTM D5185m >150	1	1	1
Tin	ppm	ASTM D5185m >5	<1	2	1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	6	1	2
Barium	ppm	ASTM D5185m 0	5	0	2
Molybdenum	ppm	ASTM D5185m 60	51	59	61
Manganese	ppm	ASTM D5185m 0	0	<1	<1
Magnesium	ppm	ASTM D5185m 1010	752	968	854
Calcium	ppm	ASTM D5185m 1070	1023	1149	1164
Phosphorus	ppm	ASTM D5185m 1150	813	948	910
Zinc	ppm	ASTM D5185m 1270	1011	1220	1148
Sulfur	ppm	ASTM D5185m 2060	2564	3503	2489

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	3	3	<1
Sodium	ppm	ASTM D5185m	8	9	5
Potassium	ppm	ASTM D5185m >20	2	4	4
Fuel	%	ASTM D3524 >5	8.8	7.4	7.2

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	4.1	3.6	2.2
Nitration	Abs/cm	*ASTM D7624 >20	11.9	12.2	10.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	34.9	34.5	28.3

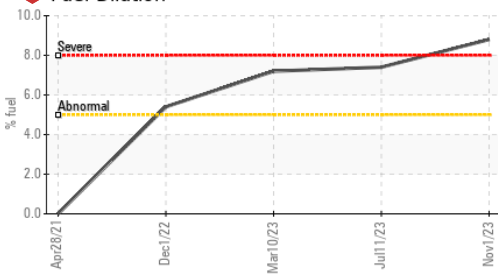
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	34.4	33.1	28.2
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	1.1	2.1	4.9

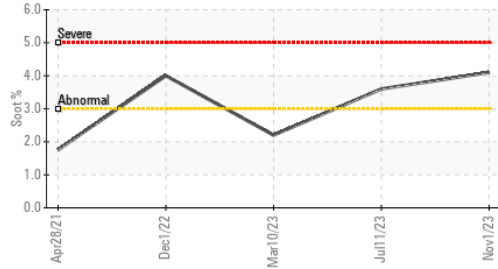


OIL ANALYSIS REPORT

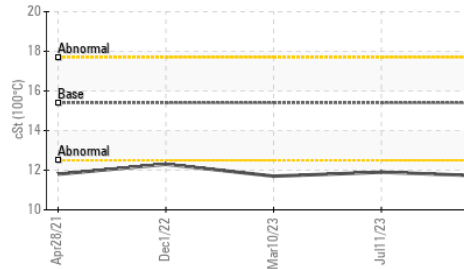
Fuel Dilution



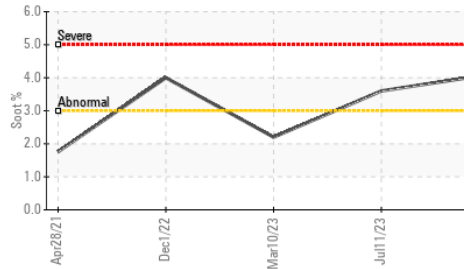
Soot %



Viscosity @ 100°C



Soot %

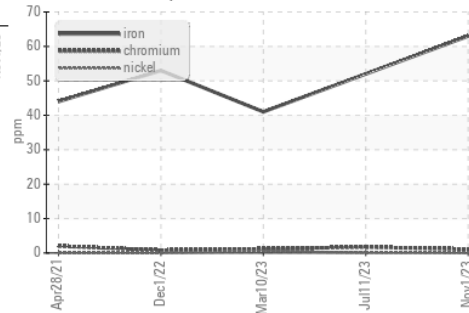


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

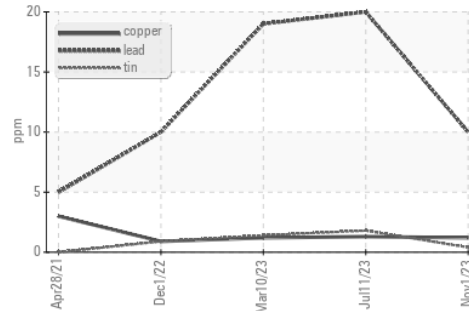
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.7	▲ 11.9

GRAPHS

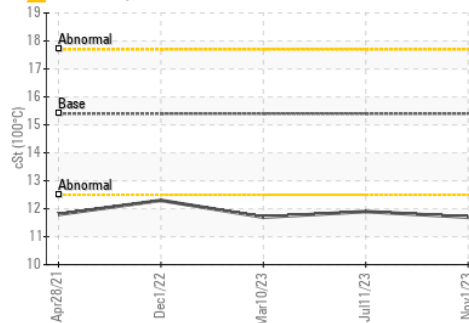
Ferrous Alloys



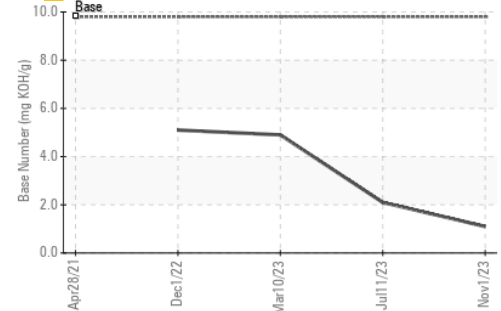
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : SBP0005601 Received : 07 Nov 2023
 Lab Number : 06000946 Diagnosed : 09 Nov 2023
 Unique Number : 10729306 Diagnostician : Don Baldrige
 Test Package : FLEET (Additional Tests: PercentFuel)

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)

SCHMIDT TRANSPORTATION - 605449

108 E Bay Road
 Plattsmouth, NE
 US 68048

Contact: NICK DOTY
 doty@liquidtrucking.com

T: (402)949-9398

F: