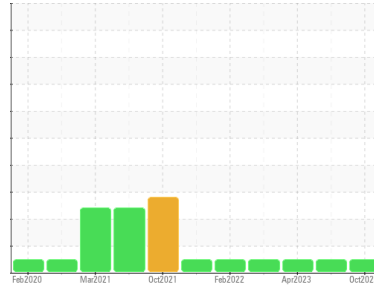




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
DODGE DODGE DURANGO

Component
Gasoline Engine

Fluid
HIGH PERFORMANCE LUBRICANTS HP SAE 5W20 (7 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please note that this is a corrected copy for laboratory data updates for FTIR.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		HPL0003565	HPL0003569	HPL0003560
Sample Date	Client Info		28 Oct 2023	13 Jun 2023	20 Apr 2023
Machine Age	mls	Client Info	168000	158700	152000
Oil Age	mls	Client Info	28000	18700	12000
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<1.0	<1.0	<1.0
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>150	23	17	15
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>40	8	5	1
Lead	ppm	ASTM D5185m	>50	3	0	0
Copper	ppm	ASTM D5185m	>155	64	69	72
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		1	0	0
Barium	ppm	ASTM D5185m		1	4	0
Molybdenum	ppm	ASTM D5185m		494	590	600
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		998	1059	1158
Calcium	ppm	ASTM D5185m		2340	2645	2767
Phosphorus	ppm	ASTM D5185m		855	1041	1095
Zinc	ppm	ASTM D5185m		1129	1347	1411
Sulfur	ppm	ASTM D5185m		5525	7958	7301

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>30	20	17	18
Sodium	ppm	ASTM D5185m	>400	16	4	5
Potassium	ppm	ASTM D5185m	>20	4	3	2

INFRA-RED

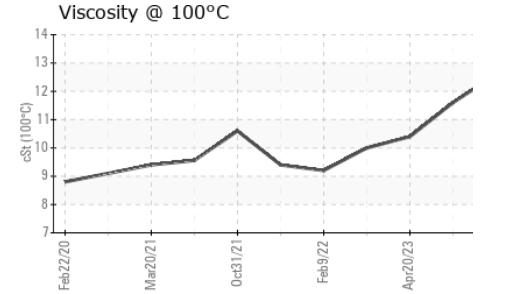
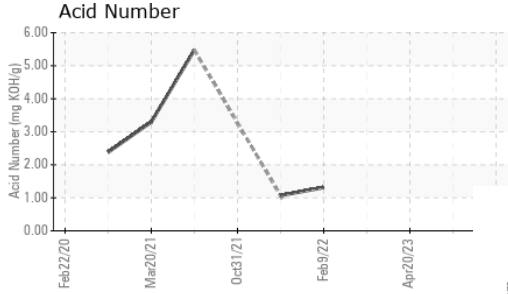
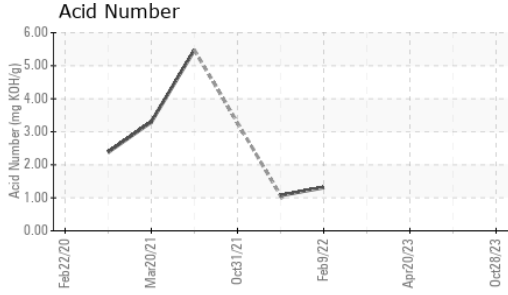
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		0	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	22.1	21.3	19.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	60.5	57.7	52.3

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	64.1	60.7	54.0
Base Number (BN)	mg KOH/g	ASTM D2896		6.08	8.11	9.28



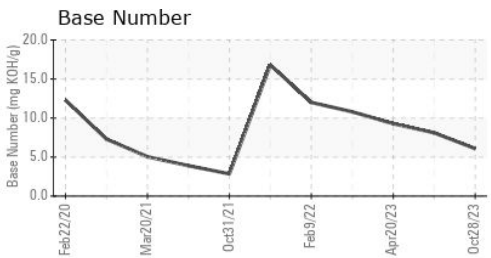
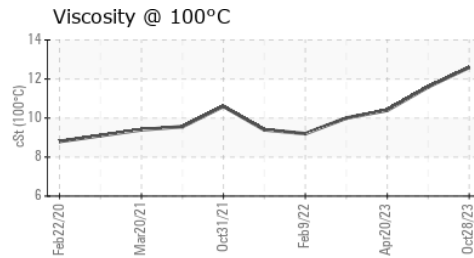
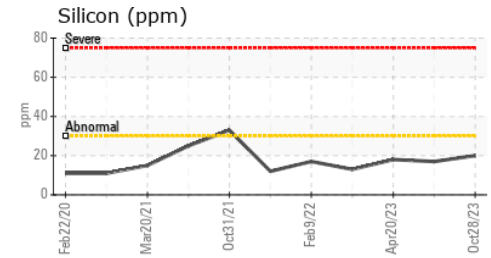
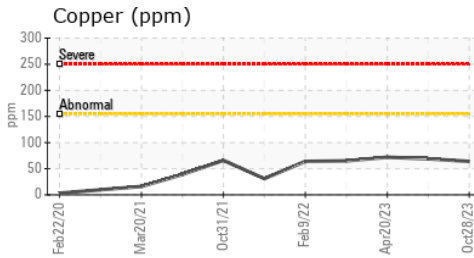
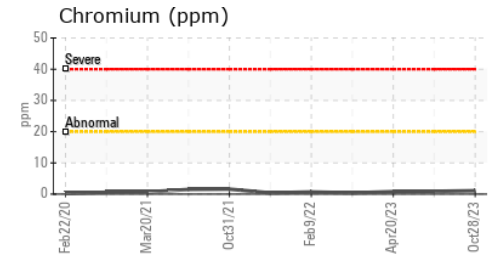
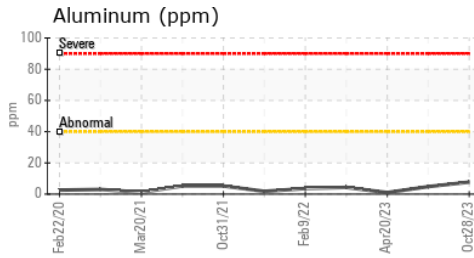
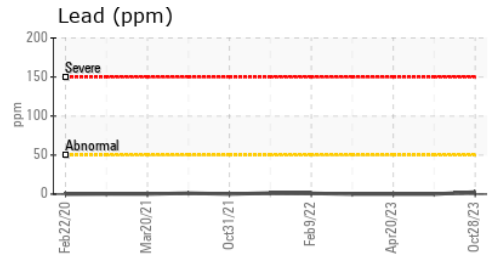
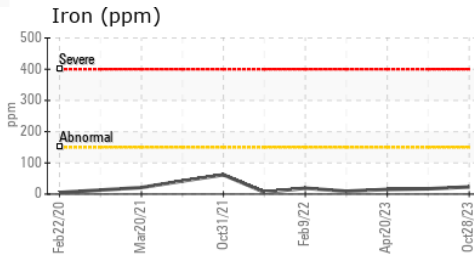
OIL ANALYSIS REPORT



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	12.6	11.6	10.4

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : HPL0003565 **Received** : 01 Nov 2023
Lab Number : 05996352 **Diagnosed** : 07 Nov 2023
Unique Number : 10724712 **Diagnostician** : Doug Bogart
Test Package : MOB 2 (Additional Tests: TBN)

WAYNE WILLSON
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 FORT COLLINS, CO
 US 80521
 Contact: WAYNE WILLSON
 wayne.willson@gmail.com
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 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)