

## **OIL ANALYSIS REPORT**

Sample Rating Trend

## NORMAL

## CONSTRUCTORS, INC Machine Id CHEVROLET GASOLINE 40637 Component

Gasoline Engine

MOBIL CLEAN 5W30 5000 (--- GAL)

#### 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.

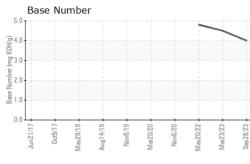
### Fluid Condition

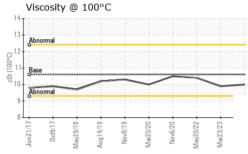
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

		Jun2017 Oct2	017 May2018 Aug2019 Nov2	019 Mar2020 Nov2020 May2022 Mar	023 Sep2023	
SAMPLE INFORM	<b>IATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		SBP0004571	SBP0003802	SBP0001245
Sample Date		Client Info		28 Sep 2023	23 Mar 2023	20 May 2022
Machine Age	hrs	Client Info		6353	6082	5805
Oil Age	hrs	Client Info		271	277	271
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	N	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	29	22	14
Chromium	ppm	ASTM D5185m	>20	2	2	1
Nickel	ppm	ASTM D5185m	>5	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>40	4	4	4
Lead	ppm	ASTM D5185m	>50	<1	0	<1
Copper	ppm	ASTM D5185m	>155	14	19	14
Tin	ppm	ASTM D5185m	>10	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method				history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 48	history1 58	history2 84
Boron	ppm ppm		limit/base			
Boron Barium		ASTM D5185m	limit/base	48	58	84
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m	limit/base	48 0	58 0	84 0
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	48 0 70	58 0 68	84 0 69
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	48 0 70 <1	58 0 68 1	84 0 69 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	48 0 70 <1 500	58 0 68 1 519	84 0 69 <1 553
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	48 0 70 <1 500 1164	58 0 68 1 519 1249	84 0 69 <1 553 1276
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	48 0 70 <1 500 1164 651	58 0 68 1 519 1249 642	84 0 69 <1 553 1276 676
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	48 0 70 <1 500 1164 651 783	58 0 68 1 519 1249 642 815	84 0 69 <1 553 1276 676 808
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		48 0 70 <1 500 1164 651 783 2724	58 0 68 1 519 1249 642 815 2999	84 0 69 <1 553 1276 676 808 2463
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	48 0 70 <1 500 1164 651 783 2724 current	58 0 68 1 519 1249 642 815 2999 history1	84 0 69 <1 553 1276 676 808 2463 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base	48 0 70 <1 500 1164 651 783 2724 <b>current</b> 14	58 0 68 1 519 1249 642 815 2999 history1 12	84 0 69 <1 553 1276 676 808 2463 history2 7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	limit/base >30 >400	48 0 70 <1 500 1164 651 783 2724 <b>Current</b> 14 2	58 0 68 1 519 1249 642 815 2999 history1 12 3	84 0 69 <1 553 1276 676 808 2463 2463 history2 7 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >30 >400	48 0 70 <1 500 1164 651 783 2724 current 14 2 1	58 0 68 1 519 1249 642 815 2999 history1 12 3 3 3	84 0 69 <1 553 1276 676 808 2463 history2 7 1 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >30 >400 >20	48 0 70 <1 500 1164 651 783 2724 <b>current</b> 14 2 1 1 	58 0 68 1 519 1249 642 815 2999 history1 12 3 3 3	84 0 69 <1 553 1276 676 808 2463 <b>history2</b> 7 1 1 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >30 >400 >20	48 0 70 <1 500 1164 651 783 2724 <b>current</b> 14 2 1 1 	58 0 68 1 519 1249 642 815 2999 history1 12 3 3 3 	84 0 69 <1 553 1276 676 808 2463 history2 7 1 1 1 1 
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >30 >400 >20 limit/base	48 0 70 <1 500 1164 651 783 2724 <i>current</i> 14 2 1 1 2 1 1  0	58 0 68 1 519 1249 642 815 2999 history1 12 3 3 3  history1 0.1	84 0 69 <1 553 1276 676 808 2463 history2 7 1 1 1 1 1  history2 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >30 >400 >20 limit/base	48 0 70 <1 500 1164 651 783 2724 Current 14 2 1  Current 0 10.6	58 0 68 1 519 1249 642 815 2999 history1 12 3 3  history1 0.1 9.8	84 0 69 <1 553 1276 676 808 2463 history2 7 1 1 1 1  history2 0 10.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >30 >400 >20 limit/base >20 >30 >30	48 0 70 <1 500 1164 651 783 2724 Current 14 2 1 1  current 0 10.6 23.0 Current	58 0 68 1 519 1249 642 815 2999 history1 12 3 3 3  history1 0.1 9.8 21.4 history1	84 0 69 <1 553 1276 676 808 2463 history2 7 1 1 1 1  history2 0 10.5 21.6 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >30 >400 >20 limit/base >20	48 0 70 <1 500 1164 651 783 2724 <b>current</b> 14 2 1 1  <b>current</b> 0 10.6 23.0	58 0 68 1 519 1249 642 815 2999 history1 12 3 3 3  history1 0.1 9.8 21.4	84 0 69 <1 553 1276 676 808 2463 history2 7 1 1 1 1 history2 0 0 10.5 21.6

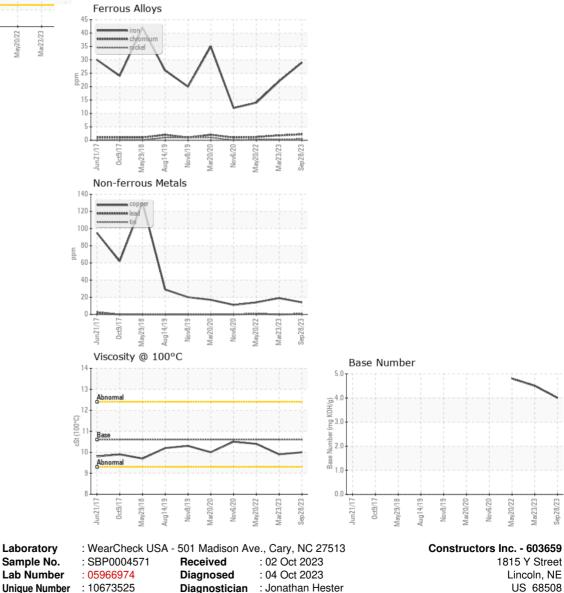


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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*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 PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	10.6	10.0	9.9	10.4
GRAPHS						





Test Package : FLEET Certificate L2367 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)

Submitted By: Jack Linhart Page 2 of 2

jackl@constructorslincoln.com

Contact: Jack Linhart

T: (402)434-2157

Sep28/23

F:

Mar23/23