



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**VOLVO A35G 340049**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA 15W40 (--- QTS)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ML0002171</b>	VCP253401	VCP226407
Sample Date		Client Info		<b>19 Jun 2024</b>	22 Oct 2019	11 Sep 2018
Machine Age	hrs	Client Info		<b>9382</b>	5904	4988
Oil Age	hrs	Client Info		<b>421</b>	5000	0
Filter Age	hrs	Client Info		<b>421</b>	0	0
Oil Changed		Client Info		<b>Not Chngd</b>	N/A	Changed
Filter Changed		Client Info		<b>Not Chngd</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>10</b>	11	9
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	1	<1
Titanium	ppm	ASTM D5185m		<b>1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>4</b>	4	2
Lead	ppm	ASTM D5185m	>40	<b>1</b>	<1	0
Copper	ppm	ASTM D5185m	>330	<b>1</b>	4	2
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

There is no indication of any contamination in the oil.

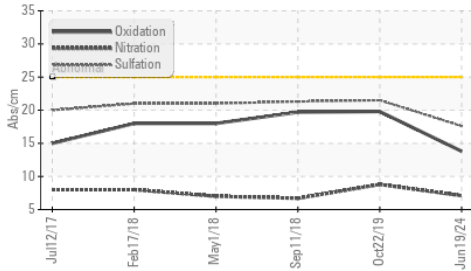
Silicon	ppm	ASTM D5185m	>25	<b>6</b>	8	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	1	1
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.1</b>	8.8	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.6</b>	21.5	21.3
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

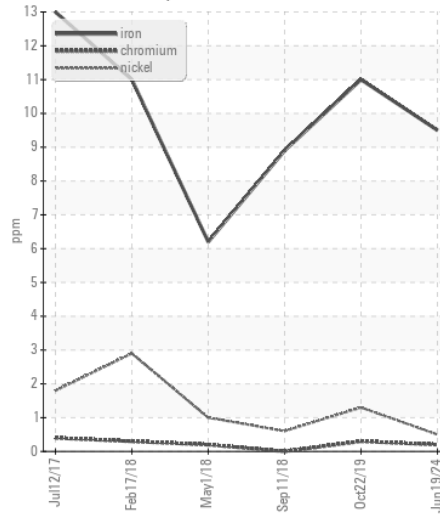
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>2</b>	3	7
Boron	ppm	ASTM D5185m		<b>9</b>	24	32
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>62</b>	38	41
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>1032</b>	475	521
Calcium	ppm	ASTM D5185m		<b>1216</b>	1512	1662
Phosphorus	ppm	ASTM D5185m		<b>1141</b>	737	666
Zinc	ppm	ASTM D5185m		<b>1407</b>	799	867
Sulfur	ppm	ASTM D5185m		<b>3997</b>	1002	2214
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.8</b>	19.8	19.7
Base Number (BN)	mg KOH/g	ASTM D2896		<b>9.3</b>	---	---
Visc @ 100°C	cSt	ASTM D445		<b>12.7</b>	12.5	12.43

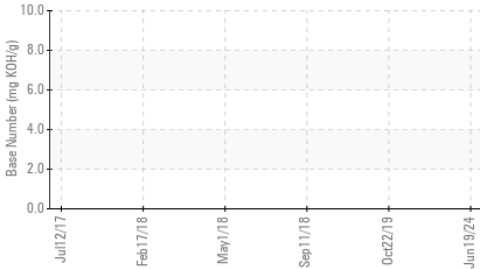
**FT-IR (Direct Trend)**



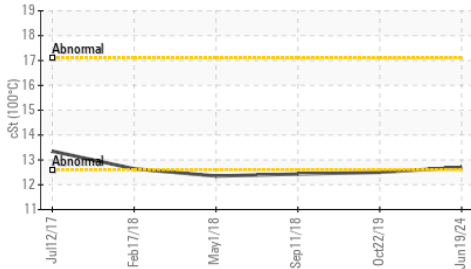
**Ferrous Alloys**



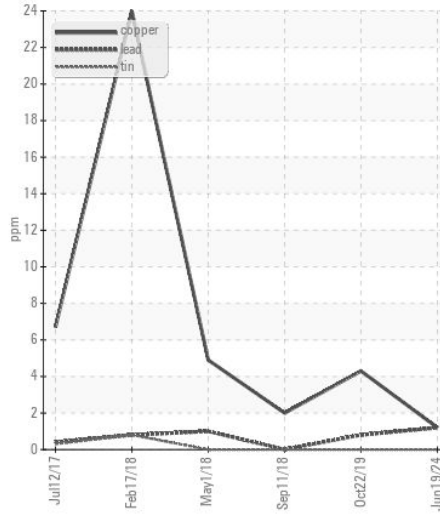
**Base Number**



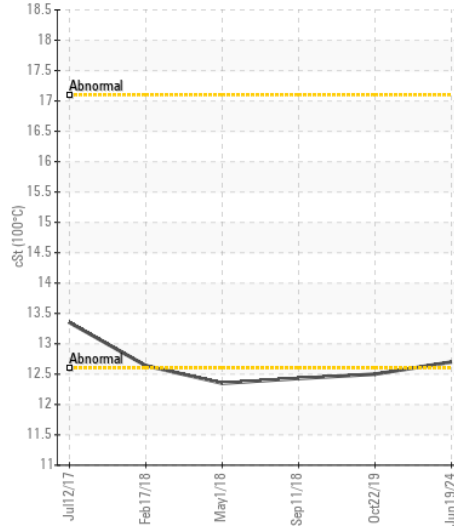
**Viscosity @ 100°C**



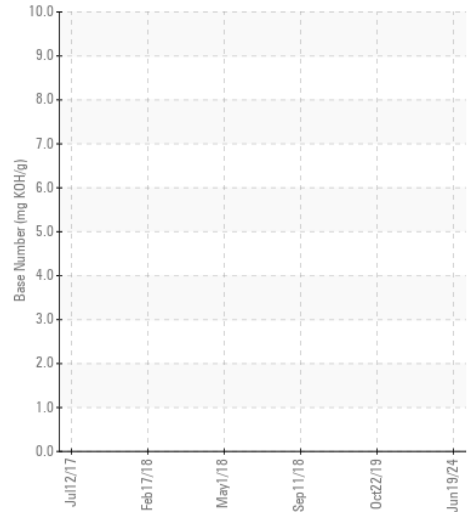
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ML0002171 **Received** : 20 Jun 2024  
**Lab Number** : 06215649 **Tested** : 21 Jun 2024  
**Unique Number** : 11088513 **Diagnosed** : 22 Jun 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: TBN )

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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)