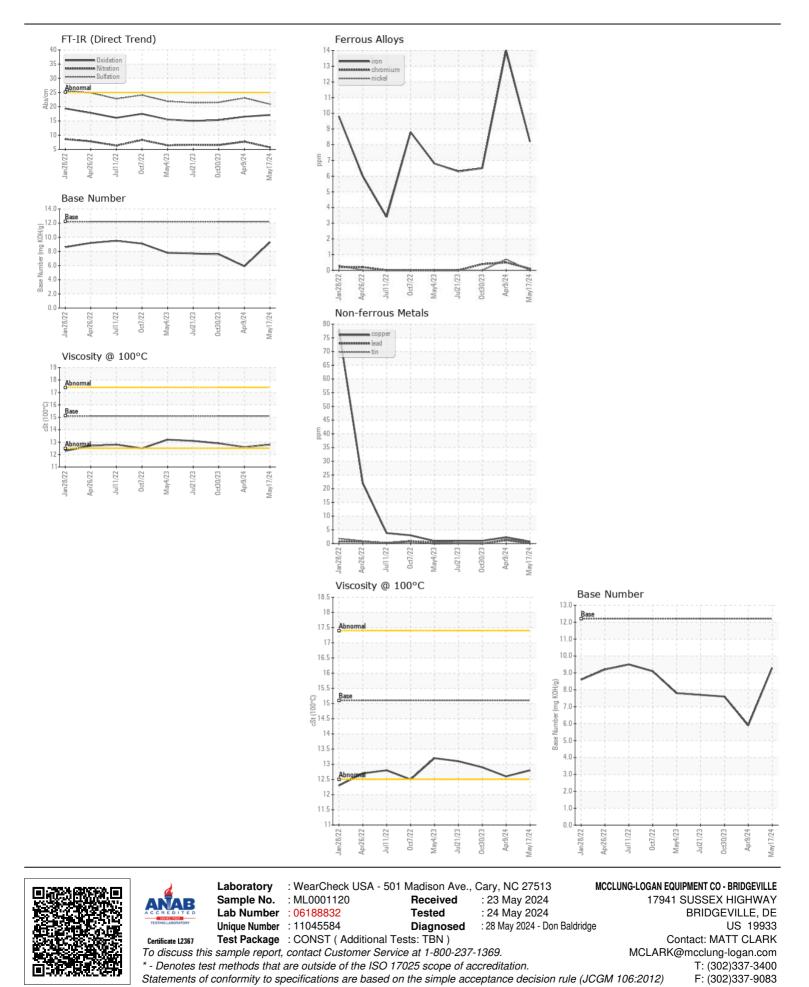


**VOLVO L180H 5373** ponent

Machine Id

## **Diesel Engine** CHEVRON DELO 400 MULTIGRADE 15W40 (--- GAL)

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RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		ML0001120	ML0000215	VCP429153
	Sample Date		Client Info		17 May 2024	09 Apr 2024	30 Oct 2023
	Machine Age	hrs	Client Info		6152	0	4973
	Oil Age	hrs	Client Info		0	0	500
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m	>200	8	14	6
	Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
	Nickel	ppm	ASTM D5185m	>5	0	<1	0
	Titanium	ppm	ASTM D5185m		<1	<1	<1
	Silver	ppm	ASTM D5185m	>2	<1	0	0
	Aluminum	ppm	ASTM D5185m		3	6	5
	Lead	ppm	ASTM D5185m		<1	1	0
	Copper	ppm	ASTM D5185m		<1	2	1
	Tin	ppm	ASTM D5185m		<1	2	0
	Vanadium	ppm	ASTM D5185m		<1	<1	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	10	13	9
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	0	3	2
	Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
	Nitration	Abs/cm	*ASTM D7624	>20	5.7	7.7	6.5
	Sulfation	Abs/.1mm	*ASTM D7415	>30	20.9	23.1	21.5
	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	NORM
	Odor	scalar	*Visual	NORML	NORML	NORML	NORM
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		1	0	<1
	Boron	ppm	ASTM D5185m		216	422	458
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	1	7
	Molybdenum	ppm	ASTM D5185m		61	88	88
	Manganese	ppm	ASTM D5185m		<1	<1	0
	Magnesium	ppm	ASTM D5185m		507	399	391
	Calcium	ppm	ASTM D5185m		1716	1471	1400
	Phosphorus	ppm	ASTM D5185m	1360	1058	1113	1038
	Zinc		ASTM D5185m		1056	1291	1260
	Sulfur	ppm	ASTM D5185m	1400		3650	4082
		ppm		- OF	3690		
	Oxidation	Abs/.1mm	*ASTM D7414		17.1	16.5	15.3
	Base Number (BN)	mg KOH/g			9.3	5.9	7.6
	Visc @ 100°C	cSt	ASTM D445	15.1	12.8	12.6	12.9



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