

NORMAL **WEAR** CONTAMINATION NORMAL **FLUID CONDITION** NORMAL

Machine Id 17706 Component **Diesel Engine** CHEVRON 15W40 (--- QTS)

WEAR

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Number		Client Info		WC0936317	WC0869172	
	Sample Date		Client Info		07 Jun 2024	19 Dec 2023	
	Machine Age	mls	Client Info		38942	14416	
	Oil Age	mls	Client Info		25000	0	
	Filter Age	mls	Client Info		25000	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	ABNORMAL	
WEAR	Iron	nnm	4STM D5185m	>100	16	38	
Metal levels are typical for a new component breaking in.	Chromium	nnm	ASTM D5185m	>20	~1	~1	
	Nickel	ppm	ASTM D5185m	>20	0	~1	
	Titanium	ppm	ASTM D5185m	24	-1	0	
	Silver	nnm	ASTM D5185m	-3	0	0	
	Aluminum	ppm	ASTM D5185m	>20	1/	22	
	Lead	nnm	ASTM D5185m	>20 >40	-1	~1	
	Conner	nnm	ASTM D5185m	>330	6	34	
	Tin	nnm	ASTM D5185m	>15	0	1	
	Vanadium	nnm	ASTM D5185m	210	0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
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CONTAMINATION Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.	Silicon	ppm	ASTM D5185m	>25	11	14	
	Potassium	ppm	ASTM D5185m	>20	18	77	
	Fuel		WC Method	>5	<1.0	1.1	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>3	0.6	1	
	Nitration	Abs/cm	*ASTM D7624	>20	6.9	8.2	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	21.3	21.5	
	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	
	Sodium	nnm	ASTM D5185m	>50	1	4	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Boron	ppm	ASTM D5185m		289	53	
	Barium	ppm	ASTM D5185m		0	0	
	Molvbdenum	ppm	ASTM D5185m		89	60	
	Manganese	ppm	ASTM D5185m		<1	3	
	Magnesium	ppm	ASTM D5185m		399	409	

Calcium

Zinc

Sulfur

Oxidation

Visc @ 100°C

Phosphorus

ppm

ppm

ppm

Base Number (BN) mg KOH/g ASTM D2896

cSt

ASTM D5185m

ASTM D5185m

ASTM D5185m

ASTM D445

14.4

Abs/.1mm *ASTM D7414 >25

ppm ASTM D5185m

Report Id: SALWIN [WUSCAR] 06216455 (Generated: 06/23/2024 05:43:11) Rev: 1

1710

1039

1252

3104

16.6

7.8

11.4

1420

989

1230

3105

14.3

7.3

13.2





Contact/Location: Audrey Hopkins - SALWIN Page 2 of 2