

OIL ANALYSIS REPORT

Area [PMIAS3429606] 4001118 - CALVERT ADVANCED LIFE SUPPORT (S/N P0709240003) **Diesel Engine**

Fluid

DURAMAX 15W40 (--- GAL)

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

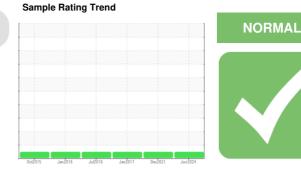
Metal levels are typical for a new component breaking in.

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.

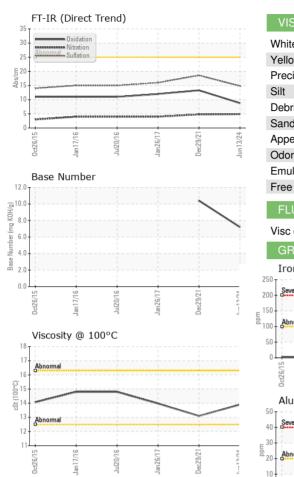


SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		DC0037168	DC0017092	DCM1037906
Sample Date		Client Info		13 Jun 2024	29 Dec 2021	26 Jan 2017
Machine Age	hrs	Client Info		324	294	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	l	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	0	3	3
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	2	<1	1
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	14	2	<1
Tin	ppm	ASTM D5185m	>15	0	<1	0
Antimony	ppm	ASTM D5185m			0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		4	15	2
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		1	57	<1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		43	837	10
Calcium	ppm	ASTM D5185m		2333	1115	2277
Phosphorus	ppm	ASTM D5185m		943	972	961
Zinc	ppm	ASTM D5185m		1109	1043	1082
Sulfur	ppm	ASTM D5185m		4567	2807	3748
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	5	10	5
Sodium	ppm	ASTM D5185m		<1	5	30
Potassium	ppm	ASTM D5185m	>20	2	<1	0
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	4.9	4.8	4.
Sulfation	Abs/.1mm	*ASTM D7415	>30	14.8	18.6	16.
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	8.8	13.3	12.
Base Number (BN)	mg KOH/g	ASTM D2896		7.2	10.4	
1.21.27) Boy: 1				Contact/Laca	tion I EQUE ON	

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White Metal scalar Visual NONE NONE NONE NONE NONE Precipitate scalar Visual NONE NONE NONE NONE Site scalar Visual NONE NONE NONE NONE Sand/Dirit scalar Visual NONE NONE NONE NONE Appearance scalar Visual NORML NORML NORML NORM Appearance scalar Visual NORML NORML NORML NORM Cdor scalar Visual NONE NONE NONE NONE Free Water scalar Visual NORML NORML NORML NORM Visual NORML NORML NORML NORM NORML NORML NORM Appearance scalar Visual NORML NORM NORM NORM Odor scalar Visual NORM NORM NORM NORM NORML NORML NORML NORM NORML NORML NORM NORML NORML NORM NORML NORM			_	VISUA	L _			method	l limit/l	base	CL	irrent	hist	tory1	histo	ory2
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Social Visual OD.2 NEG	Jan 26/17	13/24	A	ppeara	nce		scalar	*Visual	NORM	/L	NO	RML	NOR	ML	NOR	ИL
Free Water scalar 'Visual NEG NEG NEG NEG FLUID PROPERTIES method limit/base current history1 histor Visc @ 100°C cSt ASTM D445 13.9 13.1 13.97 GRAPHS Iron (ppm) 4000 00 00 00 00 00 00 00 00 00 00 00 00	Jar	Jur De	•				scalar		NORM	/L						ИL
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Copper (ppm) Copper (ppm) Co				FLUID	PROP	ERTI	ES	methoo	l limit/l	base	CL	irrent	hist	ory1	histo	ory2
Iron (ppm) Lead (V				cSt	ASTM D44	45		13.9)	13.1		13.97	
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$\frac{1}{128290}$				Iron (p	pm)					100.		(ppm)				
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Aluminum (ppm)	Jan 26/17)ec29/		Ī						60						
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Copper (ppm)				ct26/1	an 17/1	ul20/1	an 26/1	ec29/4	un13/2		ct26/1	an 17/1	ul20/1	an 26/1	ec29/7	1000
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Viscosity @ 100°C Base Number			_								Abnorm	al				
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				0. 18. (2.000,0) 14. 12.	Viscosit 16 (2,001) 14 12 Abnormal (2,001) 14 12	Uiscosity @ 10 bhoomal bhoomal bhoomal bhoomal bhoomal bhoomal bhoomal	0 91/21/02/07 91/21/07	0 51/92200 Viscosity @ 100°C Abnormal 10 10 10 10 10 10 10 10 10 10	0 91/21/02/07 91/21/02/07 Viscosity @ 100°C 0 0 0 0 0 0 0 0 0 0 0 0 0	0 51/92290 0 51/92290 0 51/92290 0 51/92290 0 51/92290 0 51/92290 0 51/92290 0 51/92290 0 51/92290 0 51/92290 0 51/92290 0 51/92290 0 51/92290 0 51/9200 51/92000 51/92000 51/92000 51/92000 51/920000 51/92000000 51/920000000 51/92000000 51/9	0 0 0 0 0 0 0 0 0 0 0 0 0 0	100 0 0 0 0 0 0 0 0 0 0 0 0	100 0 0 0 0 0 0 0 0 0 0 0 0	100 0 0 0 0 0 0 0 0 0 0 0 0	100 0 0 0 0 0 0 0 0 0 0 0 0	100 0 0 0 0 0 0 0 0 0 0 0 0

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