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Machine Id **CUMMINS 8464564** Component **Diesel Engine** Fluid **MOBIL DELVAC 1300 SUPER 15W40 (--- GAL)**

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RECOMMENDATION	Test	UOM	Method	Limit/Abn		History1	History2
We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. Resample at the next service interval to monitor.	Sample Number		Client Info		RPL0021925	RPL0019379	RPL0017394
	Sample Date		Client Info		22 Jun 2024	30 Mar 2024	13 Jan 2024
	Machine Age	mls	Client Info		186844	177684	169053
	Oil Age	mls	Client Info		153688	8631	157415
	Filter Age	mls	Client Info		12532	8631	12532
	Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
	Filter Changed		Client Info		Not Changd	Not Changd	Changed
	Sample Status				SEVERE	ABNORMAL	ABNORMAL
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m		29	11	33
	Chromium	ppm	ASTM D5185m		<1	<1	<1
	Nickel	ppm	ASTM D5185m		<1	<1	<1
	Titanium	ppm	ASTM D5185m	>2	0	<1	<1
	Silver	ppm	ASTM D5185m		0	0	0
	Aluminum	ppm	ASTM D5185m	>20	12	8	17
	Lead	ppm	ASTM D5185m		0	<1	0
	Copper	ppm	ASTM D5185m	>330	3	2	3
	Tin	ppm	ASTM D5185m	>15	<1	<1	<1
	Vanadium	ppm	ASTM D5185m		0	<1	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
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CONTAMINATION	Silicon	ppm	ASTM D5185m		6	3	5
There is a high amount of fuel present in the oil.	Potassium	ppm	ASTM D5185m		28	17	42
	Fuel	%	ASTM D3524		8 .5	4 .0	6.3
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844		0.3	0.2	0.4
	Nitration	Abs/cm	*ASTM D7624	>20	12.9	9.2	13.4
	Sulfation	Abs/.1mm	*ASTM D7415		31.1	23.5	34.7
	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
	Codium	0000			2	4	0
FLUID CONDITION	Sodium	ppm	ASTM D5185m	0	2	1	0
Fuel is present in the oil and is lowering the viscosity. The BN level is low.	Boron	ppm	ASTM D5185m		4	0	0
	Barium	ppm	ASTM D5185m		0	0	3
	Molybdenum	ppm	ASTM D5185m	0	62	61	58
	Manganese	ppm	ASTM D5185m	0	0	<1	<1
	Magnesium	ppm	ASTM D5185m	0	991	1012	922
	Calcium	ppm	ASTM D5185m		1137	1129	1074
	Phosphorus	ppm	ASTM D5185m		1004	1078	985
	Zinc	ppm	ASTM D5185m		1327	1301	1194
	Sulfur	ppm	ASTM D5185m		3633	3654	3193
	Oxidation	Abs/.1mm	*ASTM D7414	>25	37.6	24.6	43.1
	D NI I (DN)	I/OLU	AOTH DOCCO	0.4		0.4	

6.4

11.3

1.8

12.0

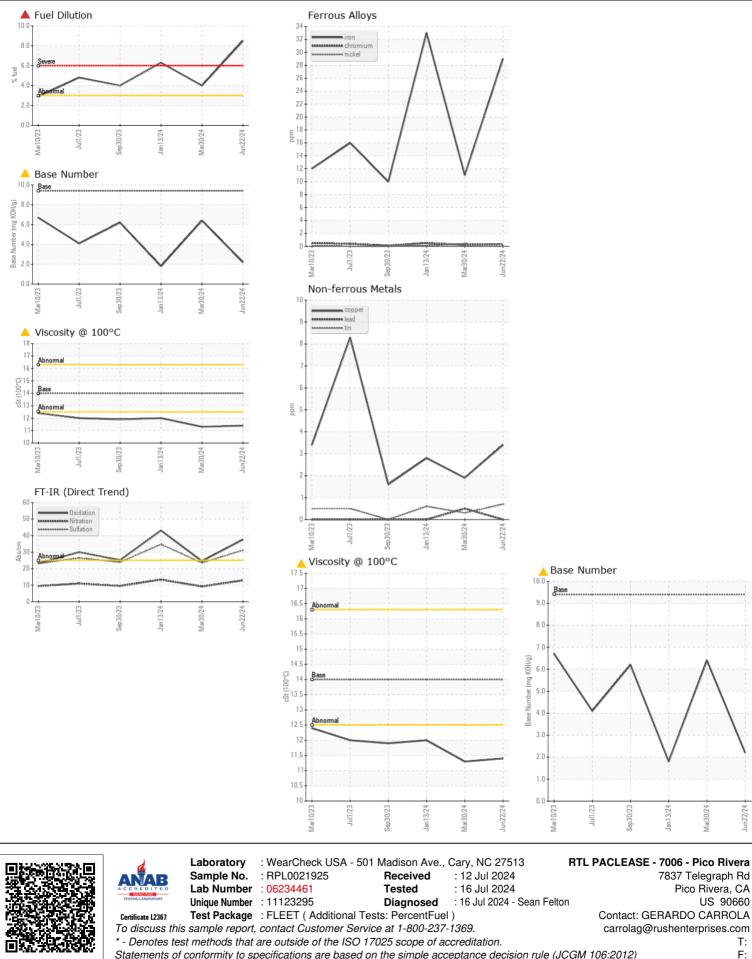
2.2

11.4

Base Number (BN) mg KOH/g ASTM D2896 9.4

ASTM D445 14

Visc @ 100°C cSt



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