

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION ABNORMAL

Machine Id GAN DIESEL Component Diesel Engine Fluid {not provided} (--- LTR) RECOMMENDATION

Resample at the next service interval to monitor. No other corrective action is recommended at this time. Please specify the component make and model with your next sample. Please specify the brand,

type, and viscosity of the oil on your next sample.

WEAR

All component wear rates are normal.

CONTAMINATION

Light fuel dilution occurring. No other contaminants were detected in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0445342	WC0445227	
Sample Date		Client Info		07 Dec 2022	03 Apr 2022	
Machine Age	hrs	Client Info		0	0	
Oil Age	hrs	Client Info		0	0	
Filter Age	hrs	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Filter Changed		Client Info		N/A	N/A	
Sample Status				ABNORMAL	ABNORMAL	
			100		00	
Chromium	ppm	ASTM D5185(m)	>100	23	23	
Chromium	ррп		>20	<1	<1	
Nickei	ppm	ASTM D5185(m)	>4	<1	<1	
Cilver	ppm	AGTM D5105(III)	. 0	<1	0	
Sliver	ррп		>3	0	7	
Aluminum	ppm	ASTM D5185(m)	>20	7	7	
Lead	ppm		>40	2	3	
Copper	ppm		>330	8	ð	
l in	ppm	ASTM D5185(m)	>15	<1	<	
vanadium	ppm	ASTM D5185(m)		<1	0	
Silicon	ppm	ASTM D5185(m)	>25	9	11	
Potassium	ppm	ASTM D5185(m)	>20	3	2	
Fuel	%	ASTM D7593*	>5	1.8	2 .1	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
Soot %	%	ASTM D7844*	>3	0	0	
Nitration	Abs/cm	ASTM D7624*	>20	7.2	7.2	
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.7	22.2	
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	
Sodium	nnm	ASTM D5185(m)		Л	Л	
Boron	ppm	ASTM D5185(m)		256	263	
Barium	nnm	ASTM D5185(m)		_1	<1	
Molybdenum	nnm	ASTM D5185(m)		247	244	
Manganese	nnm	ASTM D5185(m)		241	2	
Magnesium	nnm	ASTM D5185(m)		804	841	
Calcium	nnm	ASTM D5185(m)		1456	1361	
Phosphorus	nnm	ASTM D5185(m)		964	946	
Zinc	nom	ASTM D5185(m)		1027	1033	
Sulfur	ppm	ASTM D5185(m)		2735	2648	
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.8	15.8	
Base Number (BN)	mg KOH/g	ASTM D2896*		7.10	10.88	
Visc @ 100°C	cSt	ASTM D7279(m)		10.2	▲ 10.3	
	TestSample NumberSample DateMachine AgeOil AgeFilter AgeOil ChangedFilter ChangedSample StatusIronIronMachine AgeNickelSilverAluminumCopperTinVanadiumFuelGlycolSolterSulterSolterSulterSample StatusMaganesiumGuycolSultationBariumSulfationBariumMolybdenumMaganesiumCalciumPhosphorusZincSulfationSulfurMagnesiumKagnesiumSulfurNicationSulfurSulfurSulfurSulfurSulfurSulfurSulfurSulfurSulfurSulfurSulfurSulfurSulfurSulfurSulfurSulfurSulfurSulfurSulfationSulfurSulf	TestUOMSample NumberISample DateIMachine AgehrsOil AgehrsFilter AgeIOil ChangedIFilter ChangedJSample StatusIIronppmNickelppmTitaniumppmSilverppmAluminumppmCopperppmTinppmSiliconppmFuel%VanadiumppmFuel%Soot 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FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is suitable for further service.

Submitted By: Paul Martin





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